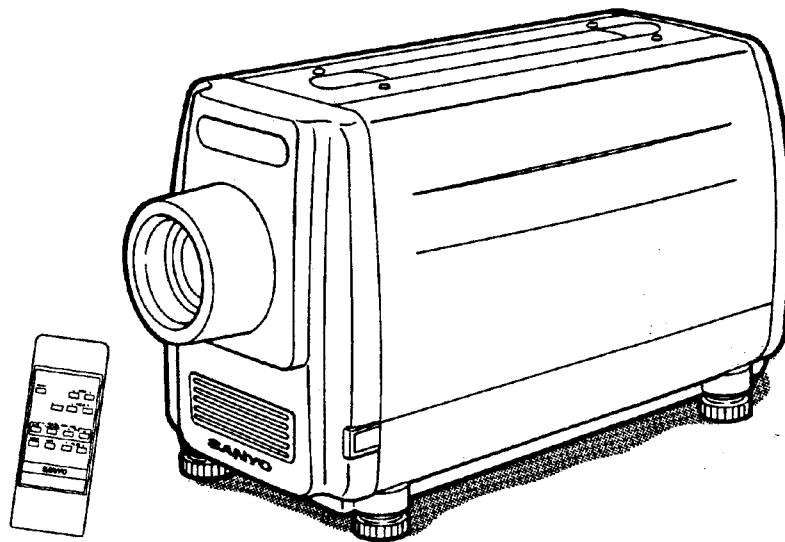




SERVICE MANUAL

Liquid Crystal Colour Video Projector

PLC-100P
(Europe, Asia, Africa, M.E.)
PLC-100PB
(U.K.)
PLC-100PP
(Australia, New Zealand)



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ORIGINAL VERSION
Chassis No.PJP1

Service PLC-100P-00
Ref. No. PLC-100PB-00
PLC-100PP-00

PRODUCT CODE

PLC-100P: 1113 092 00
PLC-100PB: 1113 092 01
PLC-100PP: 1113 092 02

REFERENCE NO. WM-520173

SAFETY INSTRUCTIONS

SAFETY PRECAUTIONS

WARNING: The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter transformer and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.


The following precautions must be observed:

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the projector.
2. Comply with all caution and safety - related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as control knobs, adjustment covers or shields and barriers.

DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

4. Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by a mark() in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of these parts must be made by exactly the same parts.

" SERVICE PERSONNEL ---- WARNING " and the following or the equivalent : " Eye Damage May Result From Directly Viewing The Light Produced By The Lamp Used In This Equipment. Always Turn Off Lamp Before Opening Cover. Ultraviolet Radiation Eye Protection Required During This Servicing. "

Never turn the power on without the lamp to avoid electric - shock or damage of the devices since the stabilizer generates high voltages(10kV - 15kV) at its start.

Since the lamp is reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off, to allow the lamp cool - off.

SPECIFICATIONS

Projector Type	Portable LC colour video projector
Dimensions (H x W x D)	323 mm x 221 mm x 633 mm
Net Weight	12.8 Kg (28.2 lbs)
LCD Panel System	3.1" TFT Active Matrix type (Thin Film Transistor) x 3
Number of Pixels	331,350 (110,450 x 3)
Colour System	4 colour system (PAL, SECAM, NTSC4.43 and NTSC)
Projection Image Size (Diagonal)	531cm to 304 cm (21 to 120 inch) Adjustable
Throw Distance	2.0 m ~5.3 m
Contrast Ratio	100 : 1
Horizontal Resolution	450 TV lines
Projection Lens	f4.5 lens with 14 ~ 28 cm Motor- drive zoom and focus
Lens Aperture	60 mm
Projection Lamp	Metal Halide, 150 watt
Projection Mirror	Dichroic mirror system
AV Input Jacks	PHONO Type x 1 (Video , Audio R and L), DIN 4 pin (S- Video) x 1 and 21 pin (SCART) x 1
Audio Monitor Output Jacks	PHONO Type x 1 (R and L)
Built- in Speaker	50 mm x 90 mm oval x 1
Audio Amplifier	Solid- State, 3 watt RMS (T.H.D. 10%)
Operating/Image Controls	Projection unit: Mains ON/OFF, Power(Lamp) ON/OFF, Volume, Zoom, Focus, Colour system select, Speaker ON/OFF, Reverse picture scanning and Video mode select. Infrared Remote Control: Power(Lamp) ON/OFF, Volume, Sound mute, Zoom, Focus, Colour system select, Video mode select, Normalization, Function select and Level control.
LED Indicators	Power ON/OFF, Ready, Temperature Warning, Lamp Replacement
Image Elevation Adjustment	Up 5° , Down 5°
Voltage	220~240V AC, 50/60Hz
Power Consumption	230 Watts
Operating Temperature	5°C ~ 35°C
Storage Temperature	- 10°C ~ 60°C
Remote Control Battery	(2) AAA, UM4 or R03 type
Standard Accessories	Infrared Remote Control, Owner's Instruction Manual, Protective Dust Cover
Optional Accessories	Adjustable side- throw projection mirror

FUNDAMENTAL PRINCIPLES OF LIQUID CRYSTAL PROJECTOR

The white light from the light source is separated into red (R), green (G), and blue (B) light components by dichroic mirror, and each of these is projected onto three liquid crystal panels.

The three liquid crystal panels are driven by the primary color signals R/G/B, and R/G/B images are reproduced by the shutter operation of these liquid crystal panels. These reflections are condensed by lens and projected onto the screen.

The structure of the liquid crystal projector is shown in the diagram. The ultraviolet and infrared rays are cut out from the light beams given off from the metal halide lamp, which is the light source, by UV cut filter and cold filter at the beginning. This is to eliminate unnecessary light components in the projected images, and serves to protect the liquid crystal panel from the light and heat of the lamp.

The light beam, now made up only of visible light components, next undergoes spectral diffraction of the red light by the dichroic mirror used for the selecting out of red. The spectrally diffracted red light is reflected by the aluminum full reflection mirror, is projected onto panel unit R, and here the red component image is formed.

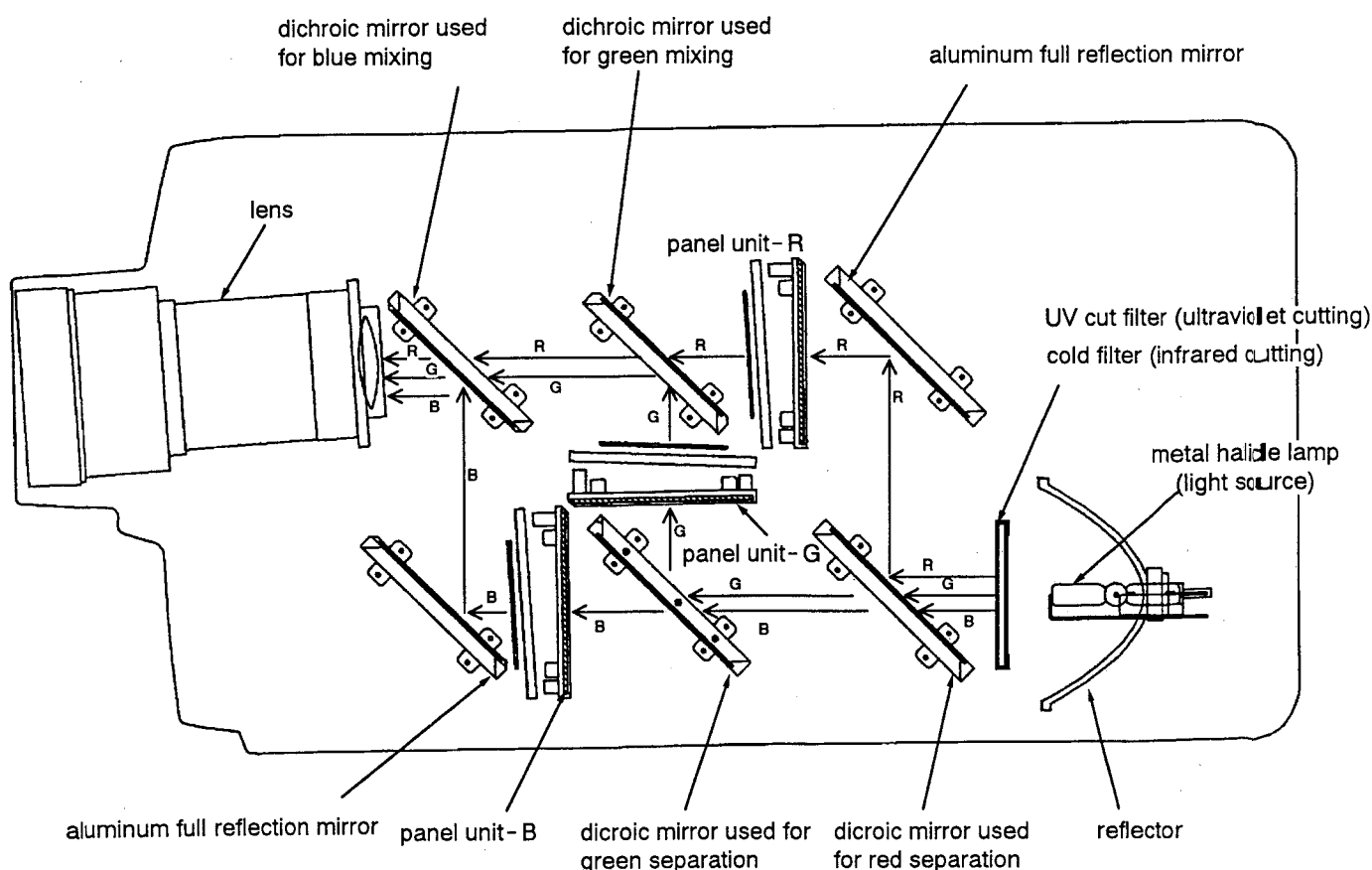
The light beam, with the red light having been separated out, next undergoes spectral diffraction of the green light by the dichroic mirror used for the selecting out of green. The spectrally diffracted green light is projected onto panel unit G, and here the green component image is formed.

The images formed on panel units R and G are mixed together by the dichroic mirror used for green mixing.

After spectral diffraction of the red and green light, the light beam (blue light) is projected onto panel unit B, and here the blue component image is formed.

The image formed on panel unit B, after being reflected by the aluminum full reflection mirror, is mixed with the red and green fused image by the dichroic mirror used for blue mixing. The mixed image is thereupon projected onto the screen through a lens.

Liquid crystal projector conceptual diagram



SYSTEM CONTROL

All systems are controlled by IC801 (CPU).

Main functions:

1. Power ON/OFF.
2. Input selection.
3. Digital control.
4. On screen.
5. Volume control.
6. Lamp monitor (Ready).
7. Temperature monitor (Temp. Warning).
8. Lamp replacement monitor (Lamp replace).
9. Zoom and Focus motor control.

1. Power ON/OFF.

CPU controls the power relay by a signal from the unit or the remote control.

2. Input selection.

Input selection will be switched from AV1 → AV2 → RGB → AV1 by the Video Mode Select button on the unit or remote control. During this operation "V.MODE" will be shown on the right corner for 5 seconds. When you turn on the power switch, the lamp is not stable yet and the indication will be shown for 30 seconds.

3. Digital control .

Digital control will be switched from COLOUR → TINT → CONT → BRIGHT → V. TON by pressing the FUNCTION button. At these selection, level can be adjusted by LEVEL button. Indication on the screen will be off after 8 seconds. When you press NORMALIZATION button, "NORMALIZATION" will be shown on the screen and all digital controls will be switched back to the factory setting. "NORMALIZATION" indication will be shown for 5 seconds.

4. On screen.

All functions will be shown on the screen. Signal will be output from CPU and combined at signal circuit.

5. Volume control.

Volume will be adjusted by the buttons on the unit and remote. The indication will be shown for 5 seconds. The sound will be muted by the mute button and the indication will be changed to red color for 5 seconds.

6. Lamp monitor.

This unit use a metal - halide arc lamp. This lamp is operated at high voltage. 10 kV ~ 15 kV will be used at striking and 80 V after lamp is on. This lamp generates heat and needs cooling. After turning off the lamp, the cooling fan continues to run for one minute to cool down the lamp. This is required to reduce the gas pressure inside the lamp. During this period, the lamp can not be turned on. The green LED will not be on for one minute after turning off the lamp. After one minute the indicator will be on and the lamp is ready to start again.

7. Temperature monitor.

When the temperature rises due to an inoperative fan or poor ventilation, the power will be automatically turn off and the red LED Indicator will light. The temperature is monitored by a bi-metal temp. sensor.

8. Lamp replacement monitor.

The lamp has a life. The orange LED indicator will warn you the replacing time. The Indicator will be lit after 1000 hours of use. Accumulated time will be stored in NON - VOLA memory (IC803) by CPU (IC801), and this information is not erased after the power cord is unplugged. After replacing the lamp, RESET switch should be set. This switch is only activated when Power is on. "RESET" indication will be shown on the screen. Do not press this RESET switch other than replacing the lamp. In the case of replacing control unit for repairing NON - VOLA memory IC (IC803) should be used continually.

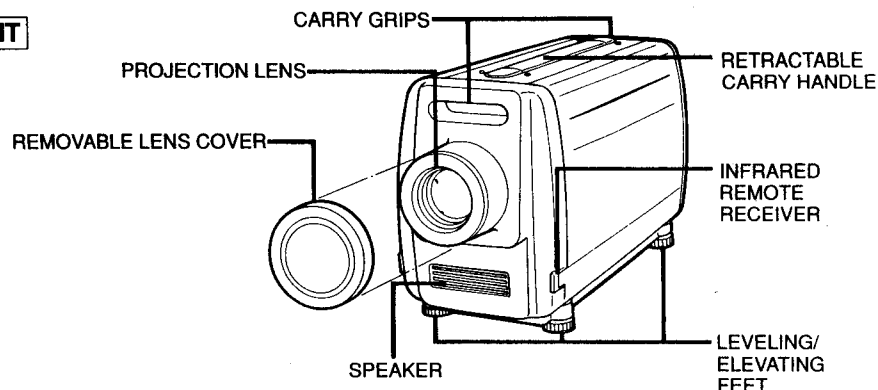
9. Zoom and Focus motor control.

Two DC motors are attached on the lens for zoom, focus adjustment.

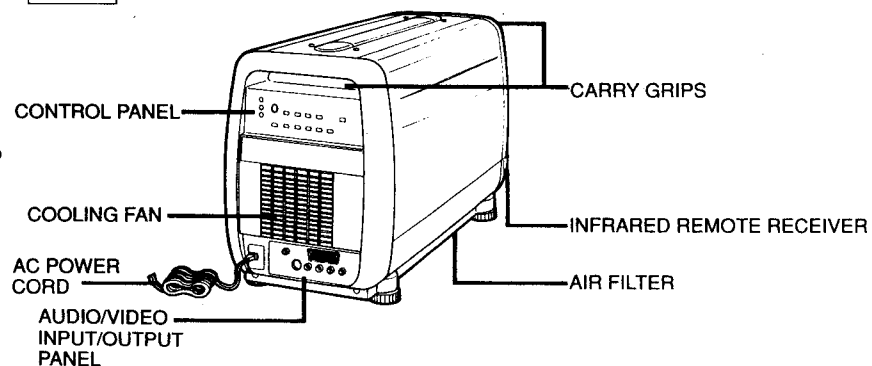
When adjusting focus, "FOCUS" will be shown on the screen and it will be off after 5 seconds when releasing the switch. For motor protection purpose, motor will be stopped after pressing the switch for 10 seconds.

DESCRIPTION

FRONT

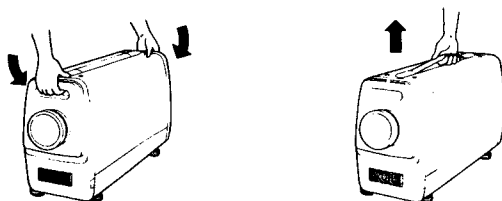


REAR



MOVING THE PROJECTOR

Use the built-in carry grips or retractable carry handle when moving the projector.



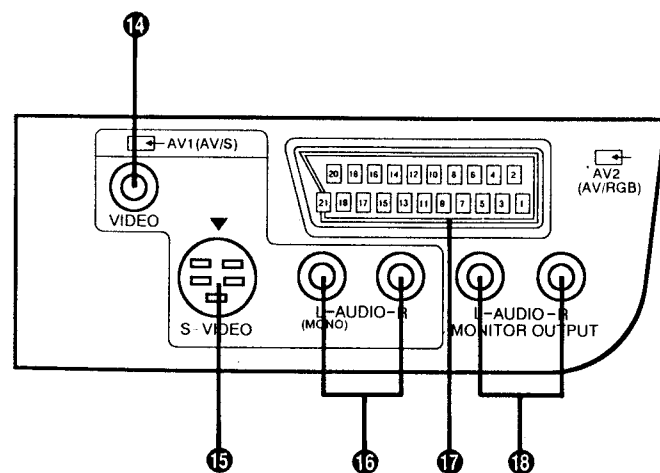
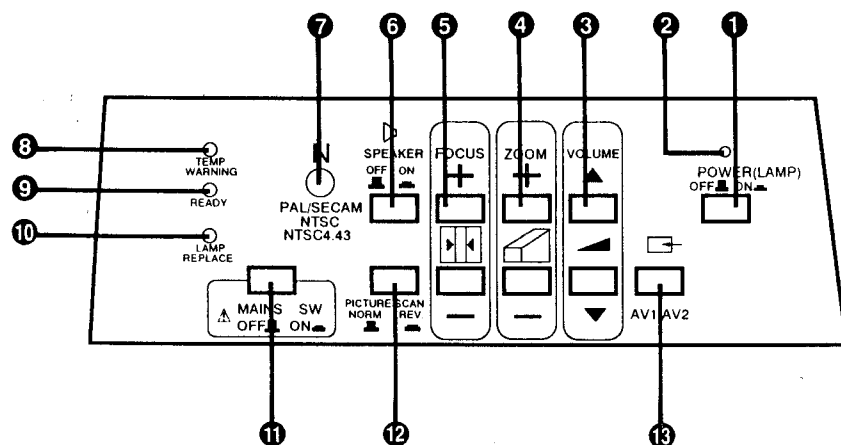
Replace the lens cover when moving the projector to prevent damage to the lens.

TROUBLE SHOOTING GUIDE

Please perform these simple checks before calling for service.

SYMPTOMS	PROCEDURES
No power	<ul style="list-style-type: none"> • Plug the projector into an AC outlet. • Press the MAINS ON/OFF button to ON. • If READY INDICATOR does not light green, check to be sure AC power is being supplied to the outlet. • Press the POWER (LAMP) ON/OFF button to ON.
No sound from built-in speaker	<ul style="list-style-type: none"> • Press the VOLUME (▲) and (▼) to (▲). • Press the SPEAKER button to ON. • Check audio cable connection with audio input source.
Picture is reversed	<ul style="list-style-type: none"> • Press the REVERSE PICTURE SCANNING button.
Picture blurred or colour faded	<ul style="list-style-type: none"> • Adjust the FOCUS buttons. • Adjust the ZOOM buttons. • Make sure the projector is at a 90° angle to the projection screen. • Move the projector closer to the screen. <p>NOTE: Moving the projector from a cool temperature location to a warm temperature location may result moisture condensation on the lens. In such an event, leave the projector OFF and wait until condensation disappears.</p>

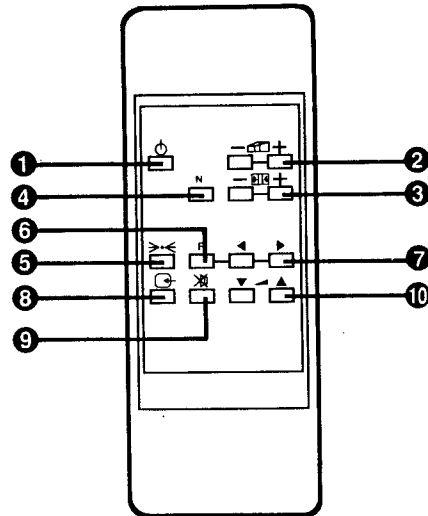
OPERATION OF CONTROLS



- 1 **POWER (LAMP) ON/OFF BUTTON**
Press to turn power and projection lamp on or off.
- 2 **POWER INDICATOR**
Lights dim when the projector is on.
Lights bright when the projector is stand-by position.
- 3 **VOLUME BUTTONS**
Used to increase or decrease sound level.
- 4 **ZOOM BUTTONS**
Used to operate power zoom lens.
- 5 **FOCUS BUTTONS**
Used to operate power focus system.
- 6 **SPEAKER ON/OFF BUTTON**
Turns the built-in speaker on or off.
- 7 **COLOUR SYSTEM SELECT BUTTON**
Press to select colour system. (AUTO → PAL → SECAM → NTSC4.43 → NTSC)
- 8 **TEMPERATURE WARNING INDICATOR**
Lights red when internal projector temperature is too high.
- 9 **READY INDICATOR**
Lights green when projector is ready to be turned on.
- 10 **LAMP REPLACEMENT INDICATOR**
Lights orange when projection lamp is nearing end of service life.
- 11 **MAINS ON/OFF BUTTON**
Press to turn the projector on.
- 12 **REVERSE PICTURE SCANNING BUTTON**
Automatically reverses the projected screen image.
- 13 **VIDEO MODE SELECT BUTTON**
Press to select video source. (Video Input-1, Video Input-2, or RGB INPUT)
- 14 **VIDEO INPUT-1 JACK**
Used to connect a video source to the projector.
- 15 **S-VIDEO INPUT JACK**
Used to connect a S-VHS video source to the projector.
- 16 **AUDIO INPUT-1 JACKS**
Used to connect an audio input to the projector.
- 17 **21-PIN TERMINAL**
Used to connect a video source with a 21-pin terminal to the projector.
- 18 **AUDIO MONITOR OUTPUT JACKS**
Permits audio connection to a monitor.

REMOTE CONTROL OPERATION

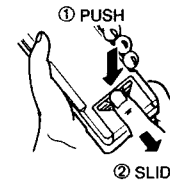
INFRARED REMOTE CONTROL



- 1 POWER (LAMP) ON/OFF BUTTON**
Press to turn projection lamp on or off.
- 2 ZOOM BUTTONS**
Used to operate power zoom lens.
- 3 FOCUS BUTTONS**
Used to operate power focus system.
- 4 COLOUR SYSTEM SELECT BUTTON**
Press to select colour system. (AUTO → PAL → SECAM → NTSC4.43 → NTSC)
- 5 NORMALIZATION BUTTON**
Used to reset to normal factory set picture adjustment.
- 6 FUNCTION SELECT BUTTON**
Used to select on-screen adjustment displays for colour, tint, contrast, brightness, video tone.
Press repeatedly to cycle.
- 7 LEVEL CONTROL BUTTONS**
Used to adjust colour, tint, contrast, brightness, video tone by pressing ◀ or ▶ buttons.
- 8 VIDEO MODE SELECT BUTTON**
Press to select video source. (Video Input-1, Video Input-2 or RGB Input)
- 9 SOUND MUTE BUTTON**
Used to mute sound.
- 10 VOLUME BUTTONS**
Used to adjust volume.

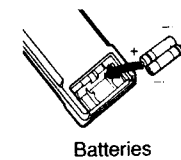
REMOTE CONTROL BATTERY INSTALLATION

- 1** Remove the battery compartment lid.

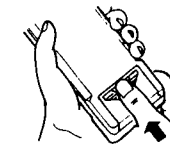


- 2** Slide the batteries into the compartment.

Note : The correct battery polarity (+ and - terminal). Be sure the battery terminals are in contact with the pins in the compartment.

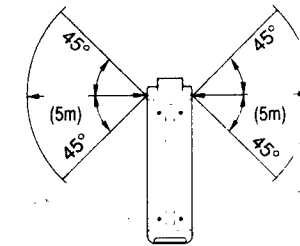


- 3** Replace the compartment lid.



USING THE REMOTE CONTROL WITH THE PROJECTOR

After installing the remote control, press the POWER (LAMP) ON/OFF BUTTON to ON. Point the remote control toward the front of the projector (Receiver window) whenever pressing the buttons.
Maximum operating range for the remote control is about 5m and 45° from the front of the projector.



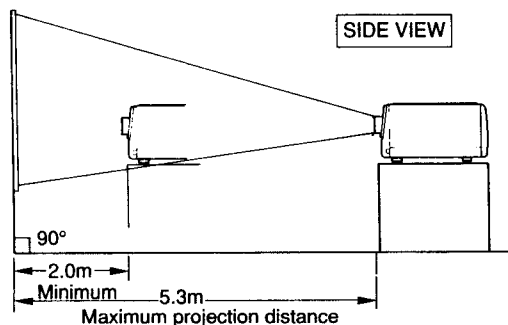
To insure safe operation, please observe the following precautions:

- * Use (2) AAA, UM4 or R03 type batteries.
- * Change both batteries at the same time.
- * Do not use a new battery with a used battery.
- * Avoid contacting the remote control with water.
- * Do not drop the remote control unit.

SETTING-UP THE PROJECTOR

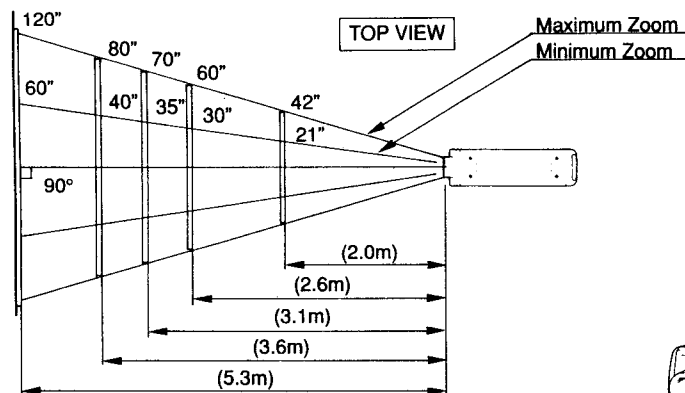
POSITIONING:

- This projector is designed to project on a flat projection surface. If the projector is not placed at 90° angle to the screen, the projected image may become distorted and difficult to view.
- This projector can be focused from 2.0m–5.3m.
- Use the illustration below as an example when positioning the projector to the screen.



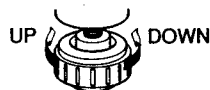
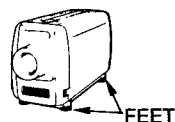
ROOM LIGHT

The projector should ideally be placed in a room with very limited light. Picture quality will be directly affected by lighting conditions.



LEVELING AND ELEVATING ADJUSTMENTS

Picture adjustments can be made with the four leveling and elevating feet located on the bottom of the projector. Adjustments of 5° up or down are possible by rotating the feet.



USING THE PROJECTOR

TO TURN ON THE PROJECTOR

- Connect the projector to a video source (VCR, Video Camera, Video Disc Player, etc.) using the appropriate terminals on the rear of the projector.
- Connect the projector's AC power cord into a wall outlet, and press the MAINS ON/OFF button (located on projector) to ON. (If the READY lights green, proceed on step 3.)

NOTE: AFTER YOU TURN OFF THE PROJECTOR YOU MUST WAIT ONE MINUTE BEFORE YOU CAN TURN THE UNIT ON AGAIN.

- Press the POWER (LAMP) ON/OFF button (located on projector) to ON. The POWER INDICATOR is dim. The wait display (A MOMENT!/UN MOMENTO! and numeral 30) appears on the screen and the count-down starts (30–29–28–...1). The signal from the video source appears after 30 seconds.

A MOMENT!/UN MOMENTO!
30

NOTE 1: If the TEMPERATURE WARNING INDICATOR flashes red, the projector will automatically turn off. Wait at least 5 minutes before turning the projector on.

If the TEMPERATURE WARNING INDICATOR continues to flash, follow the procedures below:

- Press POWER (LAMP) ON/OFF button to OFF.
- Check the air filter for dust accumulation.
- Remove dust with vacuum cleaner.
- Press POWER (LAMP) ON/OFF button to ON.

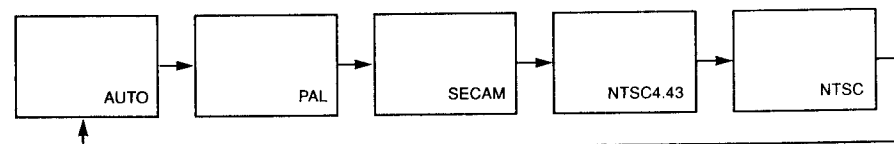
If the TEMPERATURE WARNING INDICATOR continues to flash, call your authorized distributor for service.

NOTE 2: POWER (LAMP) ON/OFF button on the remote control can be activated only when POWER (LAMP) ON/OFF button on the projector is pressed to ON.

NOTE 3: When the POWER INDICATOR will light red, press twice the POWER (LAMP) ON/OFF button (located on projector) to ON or press the POWER (LAMP) ON/OFF button on the remote control to ON.

- Press the COLOUR SYSTEM select button (located on projector or remote control) to select AUTO, PAL, SECAM, NTSC4.43 or NTSC.

Each time Colour System select button is pressed, the colour system changes as follows:



When the colour system is set to "AUTO" position, this projector can receive colour programs from one of the 4 systems (PAL, SECAM, NTSC4.43 or NTSC), automatically.

If the signal quality is poor, make sure the proper colour system is selected to match the video source.

- Press the VIDEO MODE select button (located on projector or remote control) to select Video Input-1 or Video Input-2 or RGB Input. The "AV1" or "AV2" or "RGB" display will appear on the screen.
- Press the ZOOM buttons (located on projector or remote control) to obtain the desired picture size. For the larger size, press (+) and for the smaller size, press (–).

7. To adjust the focus, press the **FOCUS** button (located on projector or remote control) for sharper, crisper picture. (This focus display will appear for 5 seconds when it is pressed.) You can make the focus adjustment easily by using the display.

FOCUS

8. To use the built-in speaker, press the **SPEAKER** button (located on projector) to "ON" position. To adjust the volume, press the **VOLUME** buttons (located on projector or remote control). The volume level display will appear on the screen.
9. Pressing the **MUTE** button on the remote control will mute the audio (A mute display will appear). Press the **MUTE** button again to restore audio to its previous level.
10. The normal colour setting is factory preset on the projector and can be obtained anytime by pressing the **NORMALIZATION** button on the remote control. You can adjust the colour to your preference by using the **FUNCTION** and **LEVEL** buttons on the remote control.

TO TURN OFF THE PROJECTOR

Press the **POWER (LAMP) ON/OFF** button on the remote control to OFF. Video, Audio and projection lamp will turn off. The **POWER INDICATOR** will light red. Or, press the **POWER (LAMP) ON/OFF** button on the projector to OFF. Video, Audio and projection lamp will turn off.

NOTE: When **POWER (LAMP) ON/OFF** button on the projector is turned off, the **READY INDICATOR** will turn off, and will relight 1 minute later. The cooling fan will operate for 1 minute after the projector is turned off. (During this "cool down" period, the projector can not be turned on). After 1 minute, the **READY INDICATOR** will light green and the cooling fan shut off. Now the projector is ready to be turned on. (See STEP 1 in "To turn on the projector").

CAUTION:

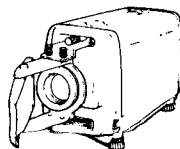
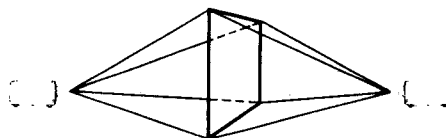
- Do not turn off the main power using the **MAINS ON/OFF** button on the projector until the cooling fan stops.
- When the **READY INDICATOR** lights green, the projector is ready to be turned on.
- When the **READY INDICATOR** light is off, the projector is not ready. Wait for 1 minute or until the indicator lights green.

OTHER FEATURES

The versatile left/right picture reverse capability lets you project onto the screen from in front or behind.

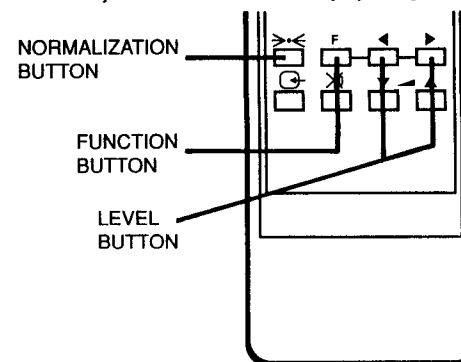
- Press the **REVERSE PICTURE SCANNING** button on the projector, if required.

With the adjustable side throw projection mirror (optional accessory), the distance from the projector to the screen can be effectively reduced, permitting projection even in small rooms.



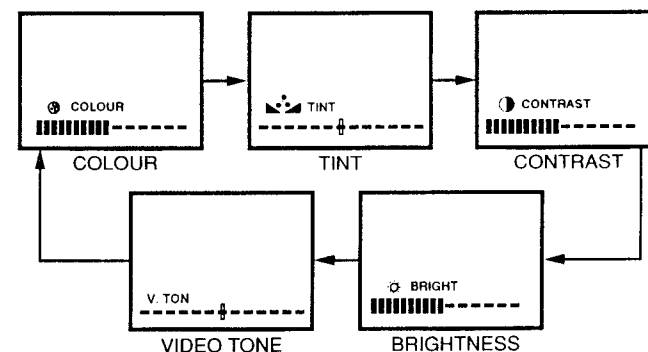
COLOUR AND PICTURE ADJUSTMENTS

Picture adjustment can be made only by using the wireless remote control.



Colour and picture adjustments have been preset at the factory to quality standards. However, with the **FUNCTION** and **LEVEL** buttons on the remote control you can select colour and picture adjustments you personally prefer.

- Select the picture adjustments function by pressing **FUNCTION** button. Each time **FUNCTION** button is pressed, the control function changes as follows:



NOTE: "TINT" will be skipped during in the PAL and SECAM mode.

- Adjust the colour intensity, tint, contrast, brightness or video tone by pressing **LEVEL** (▶ and ◀) buttons.
- The **ON-SCREEN** display will disappear automatically in 8 seconds.

NOTE: The projector is equipped with a built-in memory feature that eliminates the need to readjust the picture each time the projector is turned on. If **NORMALIZATION** button is pressed, the projector will return to factory preset colours.

CONNECTING THE PROJECTOR

Your projector comes equipped with various audio/video inputs and outputs including S-VHS video input and 21-pin terminals.

CONNECTING TO THE AV1 INPUT JACKS

Connect to the video and audio outputs of a VCR, video disc player, video camera, satellite TV tuner or other AV equipments.

- If the audio signal from the AV equipment is stereo, be sure to connect the right and left channels to the respective right and left audio input jacks.
- If the external audio signal is monaural one, connect it to the left jack.

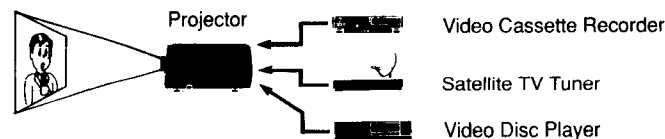
S-VHS FORMAT VCR CONNECTION

The AV1 inputs include an extra video input jack marked S-VIDEO to allow connection to an S-VHS format VCR that has separate Y/C video signals. The S-VIDEO jack has priority over the VIDEO jack.

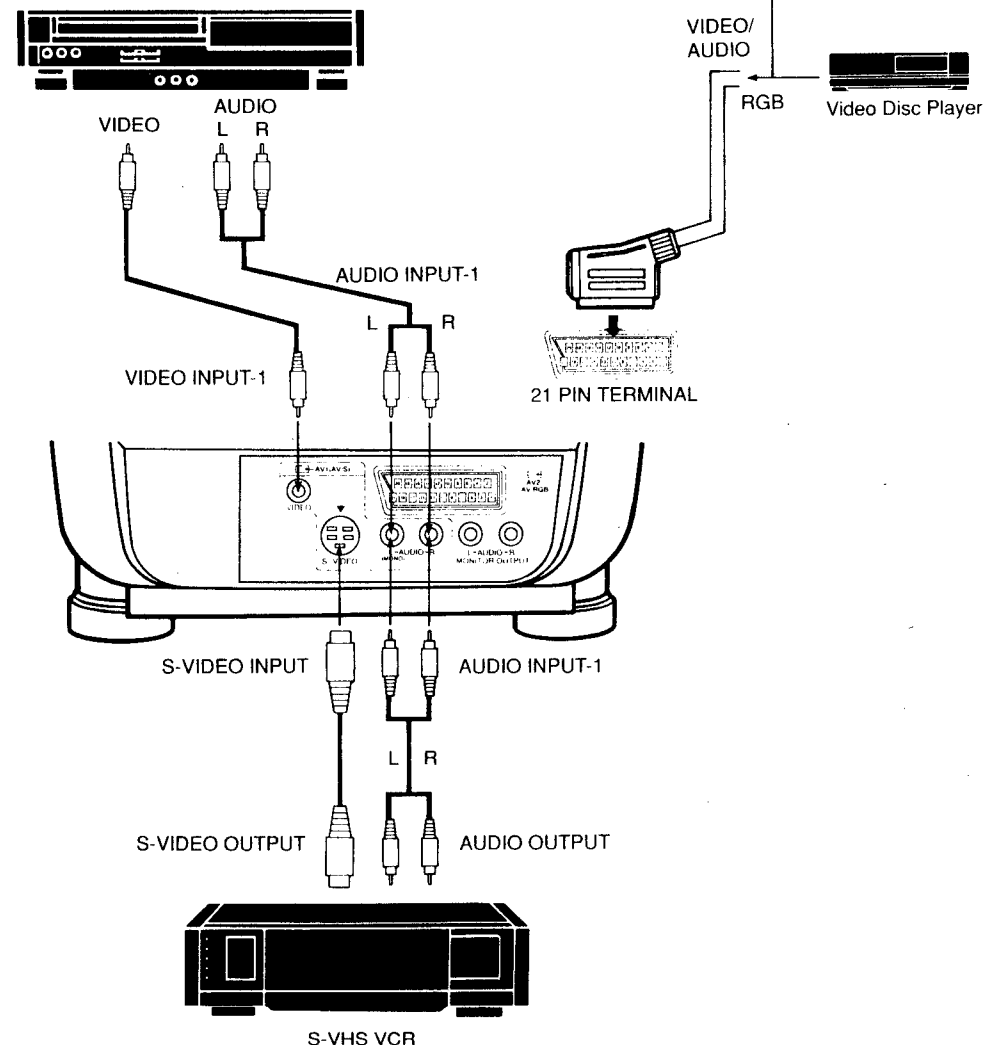
CONNECTING TO THE AV2 21-PIN TERMINAL

VCR, Video disc player or other AV equipment can be connected to the 21-pin terminal on the rear of the projector. When the 21-pin terminal is used for connection of AV equipment, note the following point.

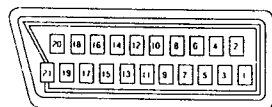
- When using equipment (VCR tapes or video discs) with the input function signal into PIN No. 8 of 21-pin terminal below, the VIDEO MODE is automatically set to "AV2" and VIDEO MODE selection is not required. And when using equipment without the input function signal, press VIDEO MODE select button on the projector or remote control to select "AV2" mode.
- When using equipment with RGB input signal and without the control signals for PIN No. 8 and 16 of 21-pin terminal below, press VIDEO MODE select button to select "RGB" mode, and when using equipment with both RGB input signal and the control signals, the VIDEO MODE is automatically set to "AV2", mode and VIDEO MODE selection is not required.



Video Cassette Recorder



21-PIN TERMINAL



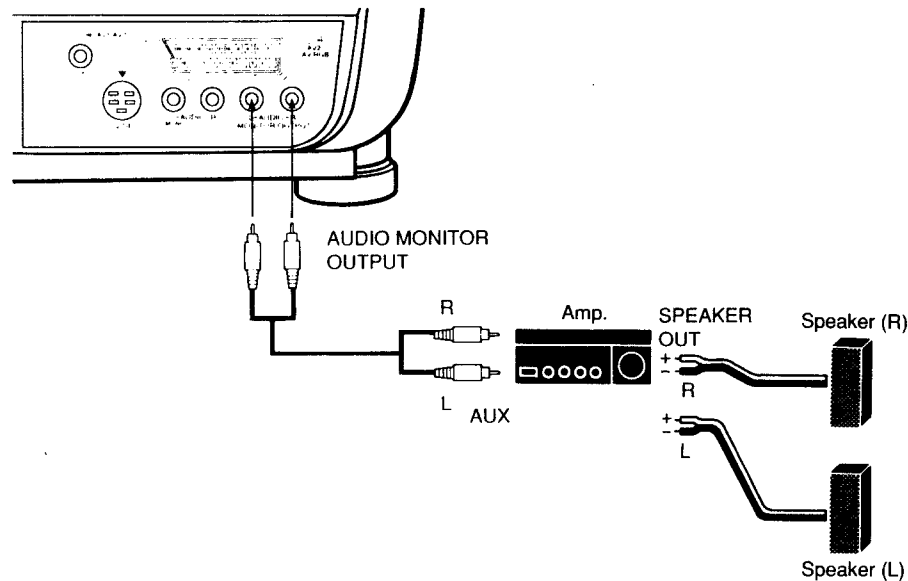
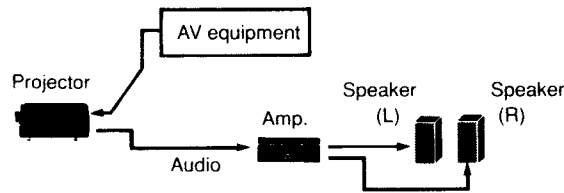
Specification of 21-pin terminal

Pin No.	Signal	
1.	Audio output (right channel)	0.5 Vrms/ ≤1 K ohm
2.	Audio input (right channel)	0.5 Vrms/ ≥10 K ohm
3.	Audio output (left channel)	0.5 Vrms/ ≤1 K ohm
4.	Earth (audio)	
5.	Earth (blue)	
6.	Audio input (left channel)	0.5 Vrms/ ≥10 K ohm
7.	Blue (B) input	0.7 Vp-p/75 ohm
8.	Function switching	L: 0-2V, H:12V
9.	Earth (green)	
10.	Not used	
11.	Green (G) input	0.7 Vp-p/75 ohm
12.	Not used	
13.	Earth (red)	
14.	Earth	
15.	Red (R) input	0.7 Vp-p/75 ohm
16.	Fast blanking	L: 0-0.4V, H:1-3V
17.	Earth (video)	
18.	Earth	
19.	Video sync. output	1 Vp-p/75 ohm
20.	Video sync. input	1 Vp-p/75 ohm
21.	Earth	

CONNECTING TO THE AUDIO MONITOR OUTPUT JACK

These jacks will contain the audio information of the selected program source being viewed on the screen. If you have selected program source AV1 whatever signal is connected to the AV1 jacks will be available at the audio monitor output jacks.

- If the audio input of the audio equipment is stereo, be sure to connect the right and left channels to the respective right and left jacks.
- If the audio input of the audio equipment is monaural one, connect it to the left jack.



AIR FILTER CARE AND CLEANING

The removable air filter prevents dust from accumulating on the surface of the projection lens and projection mirror. Should the air filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat built up and reduced lamp life.

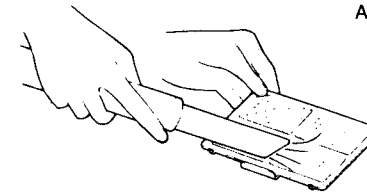
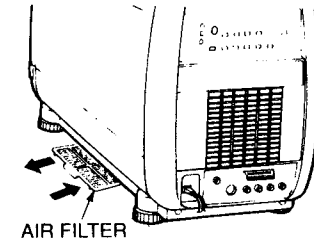
To clean the air filter, following the cleaning procedures below:

1. Turn the POWER (LAMP) ON/OFF button OFF.
2. Remove the air filter from the bottom of the projector.
3. Clean the air filter with a vacuum cleaner.
4. Replace the air filter. Make sure that it is fully inserted.



Do not clean with water. Doing so may damage the air filter.

Do not operate the projector with air filter removed.



LAMP REPLACEMENT & TEMPERATURE WARNING INDICATORS

LAMP REPLACEMENT INDICATORS

When the lamp nears the end of its service life, the picture quality and color quality will deteriorate and the lamp replacement indicator will light orange.

TEMPERATURE WARNING INDICATOR

The TEMPERATURE WARNING INDICATOR lights red when the internal temperature of the projector exceeds the normal temperature.

Possible causes for the temperature warning may be:

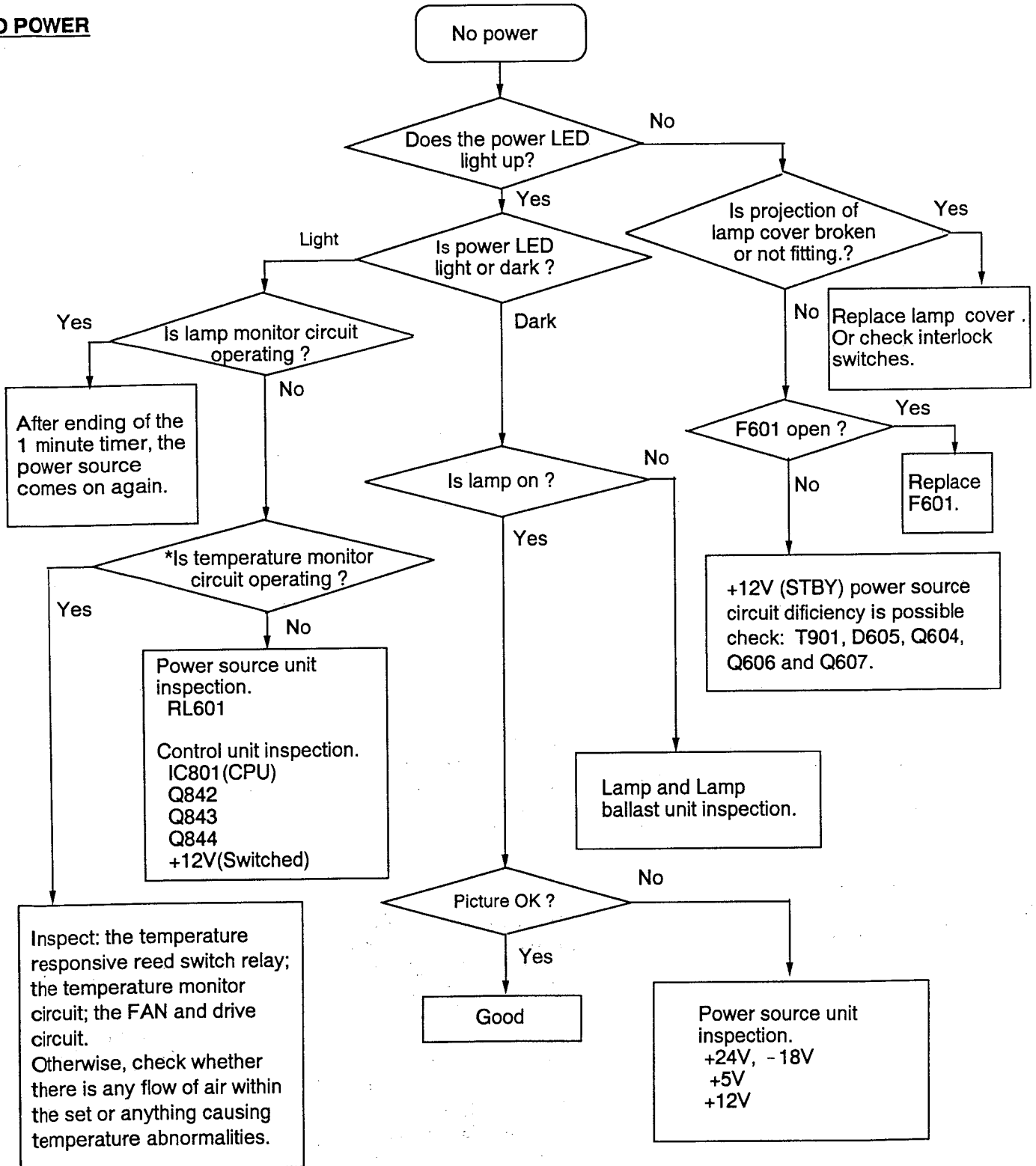
1. Ventilation slots at the rear or bottom of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
2. Air filter is clogged with dust particles. Remove dust from the air filter by following instructions in the Air Filter Care and Cleaning section above.

If temperature warning indicator remains on after performing the checks listed above, cooling fan/internal circuits may have malfunctioned. Request service from an authorized distributor or service station.

TROUBLESHOOTING CHART

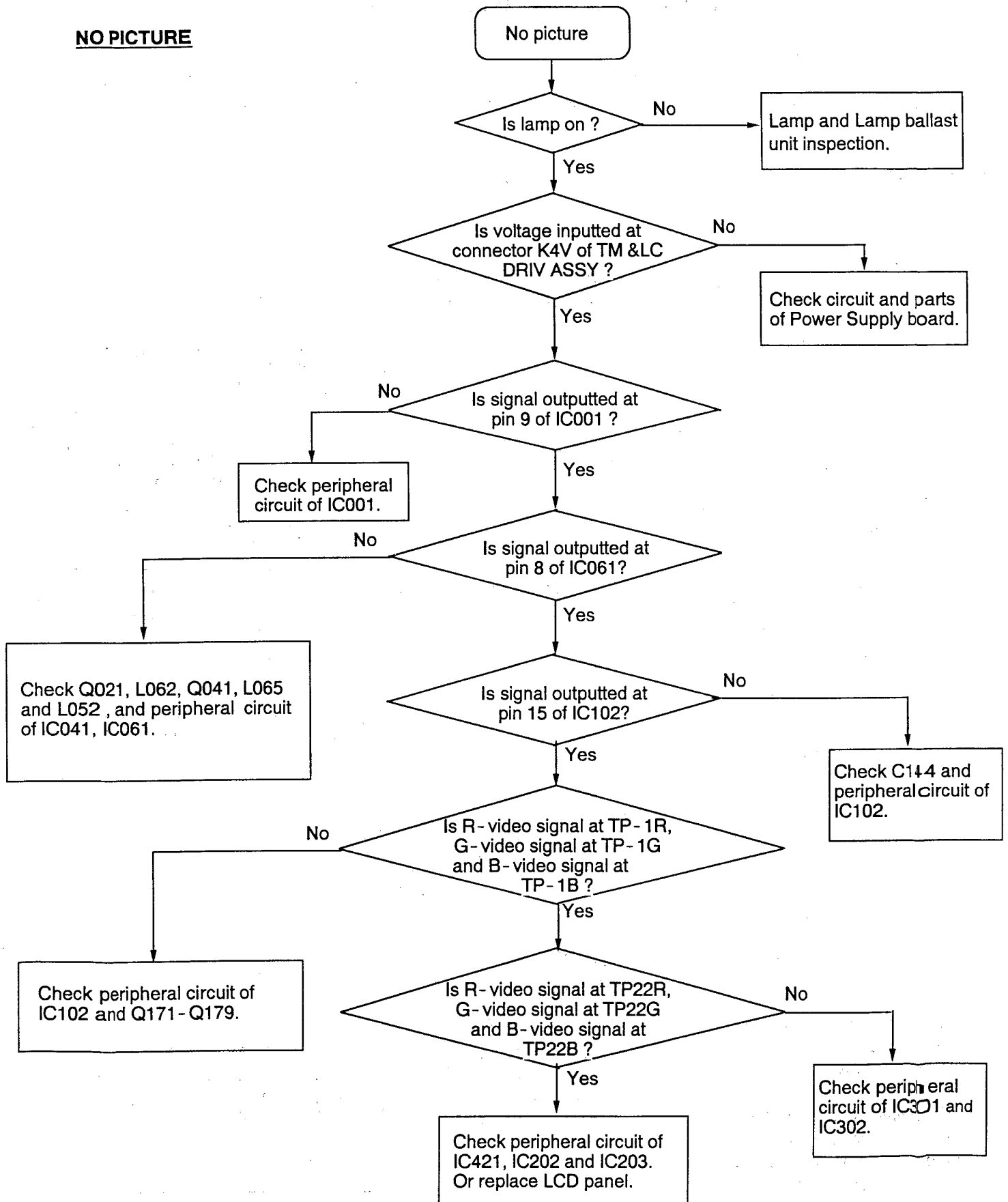
The below chart centers on a circuit characteristic of this function and describes the general standard for discovering trouble spots. Please refer to it when performing maintenance. Please use when inspecting inside the unit.

NO POWER

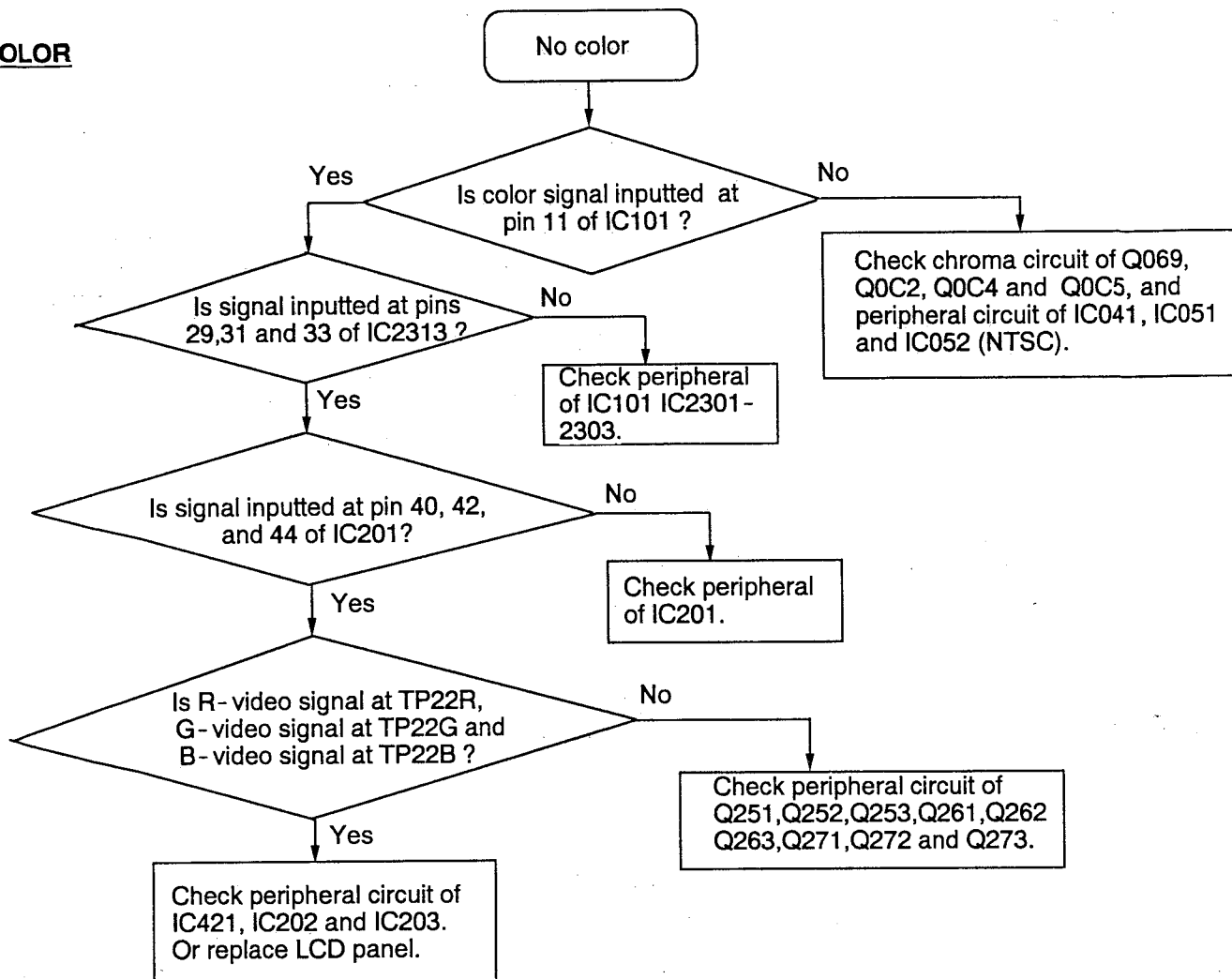


* The temperature responsive reed switch relay (SW901) is ON under normal conditions.

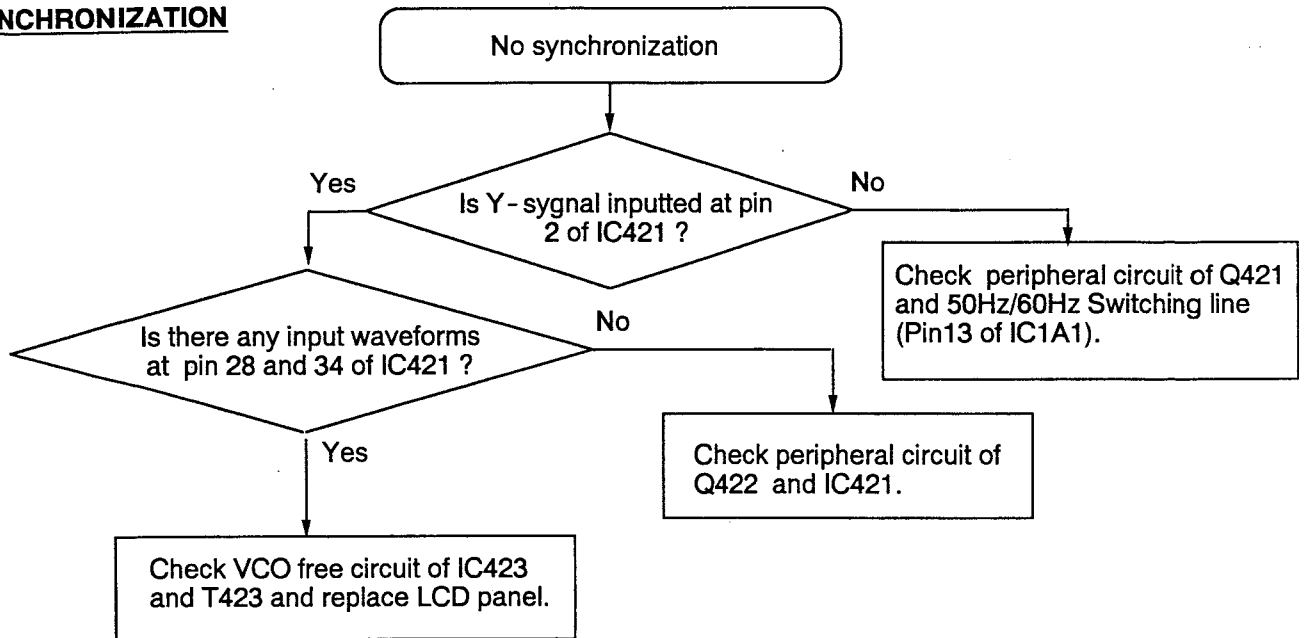
NO PICTURE



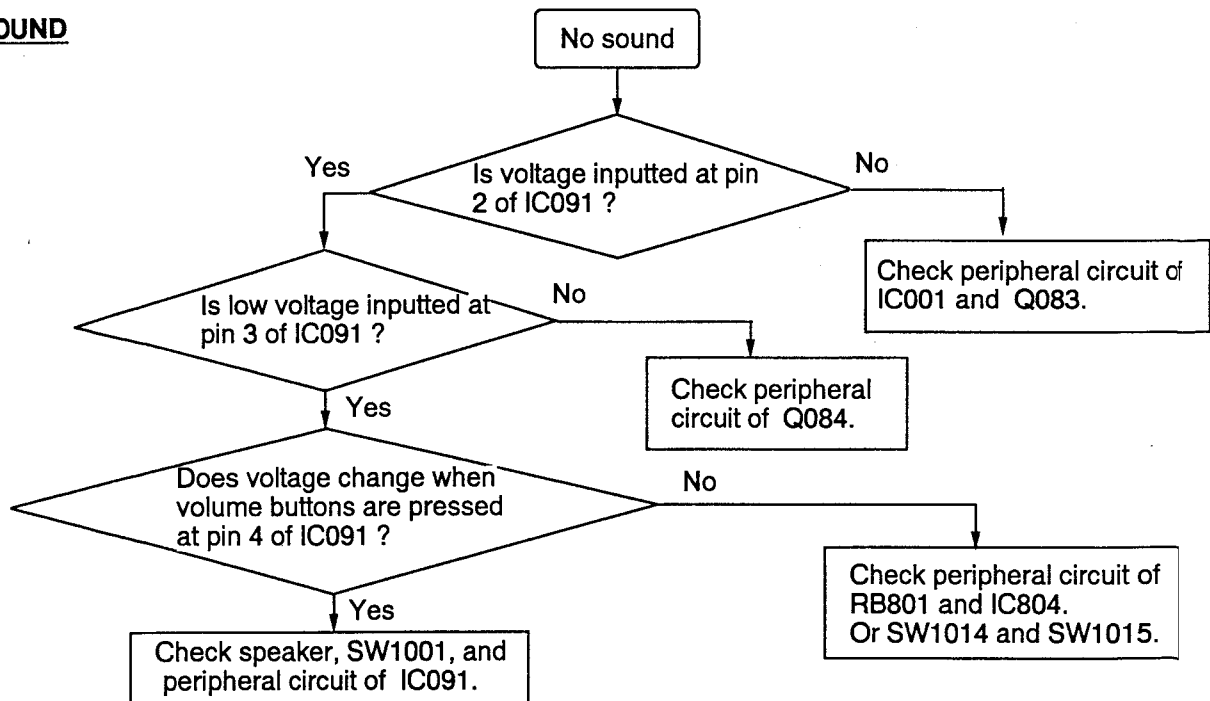
NO COLOR



NO SYNCHRONIZATION



NO SOUND



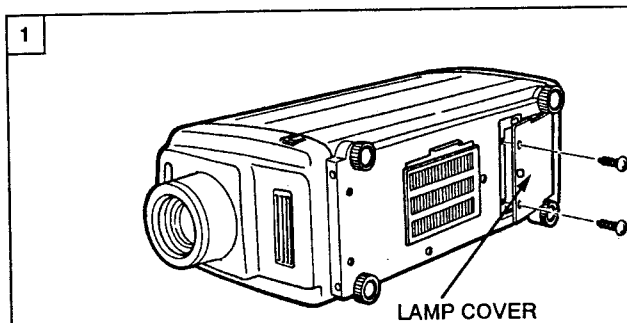
LAMP REPLACEMENT

WARNING

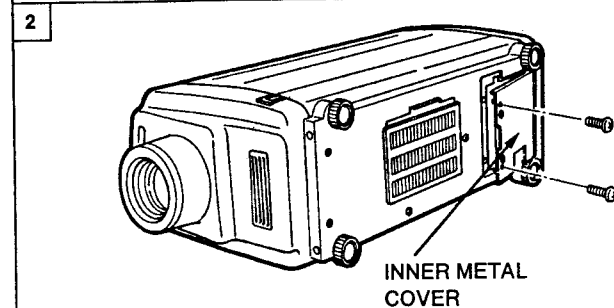
THIS LAMP IS OPERATED UNDER HIGH PRESSURE.
FOR CONTINUED SAFETY, REPLACE WITH A LAMP OF THE SAME TYPE.

UNPLUG THE PROJECTOR FROM THE POWER OUTLET BEFORE THE PROJECTION LAMP IS REPLACED.

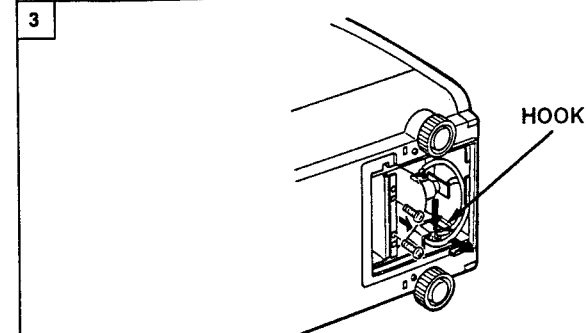
DO NOT ATTEMPT TO CHANGE A HOT LAMP.
BE CAREFUL NOT TO TOUCH THE LAMP OR MIRROR WITH OILY FINGERS.



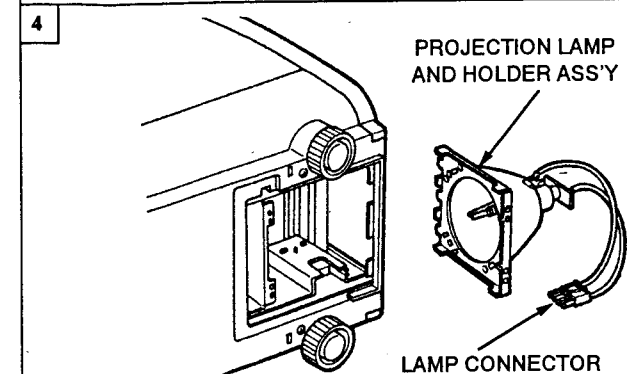
- 1
1. Place the projector on it's side.
 2. Remove 2 screws and lamp cover.



- 2
1. Remove 2 screws on the inner metal cover.
 2. Remove the inner metal cover.



- 3
1. Remove 2 screws on the lamp and holder ass'y.
 2. Disconnect the lamp connector, push the hook and pull the connector forward.
 3. Pull out the lamp and holder ass'y carefully.



- 4
1. Replace with new lamp and holder ass'y,
 2. Connect the lamp connector.
 3. Install the inner metal cover and lamp cover.

- 5
1. Connect the AC power cord into an outlet, press to turn power on.
 2. 1 minute after turning on power, press the RESET SWITCH.

Note: The "RESET" display will appear on the screen and the lamp replacement indicator disappears.

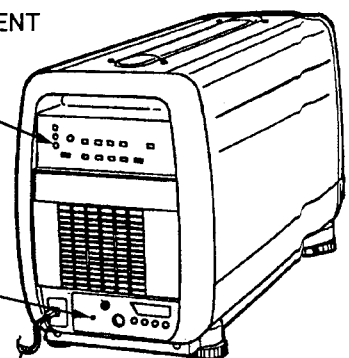
RECOMMENDATION

Should the air filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat build up and short lamp life. We recommend cleaning the air filter after the projection lamp is replaced.

Refer to AIR FILTER CARE AND CLEANING on the page 12.

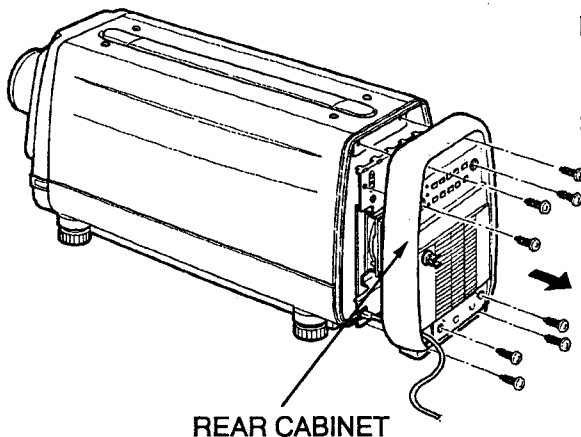
LAMP REPLACEMENT INDICATOR

RESET SWITCH



MECHANICAL DISASSEMBLIES

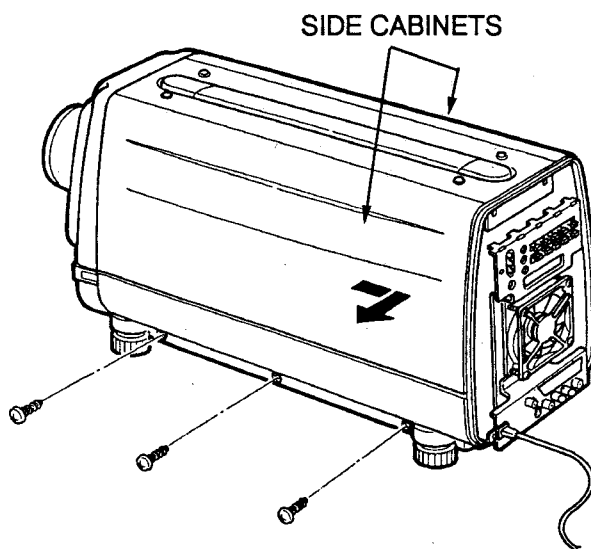
1



REAR CABINET REMOVAL

1. Remove 8 screws, on the rear cabinet.
2. Then pull the rear cabinet backward and remove.

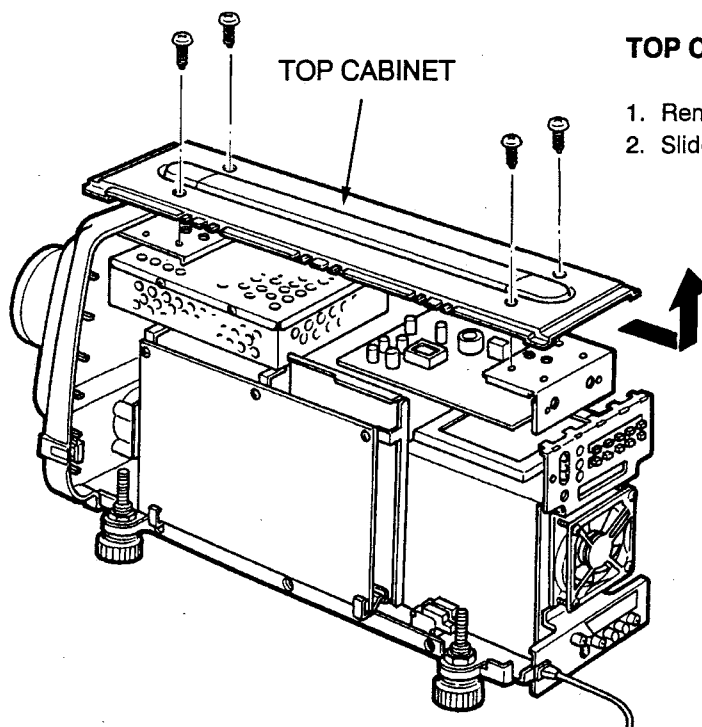
2



SIDE CABINETS REMOVAL

1. Remove 3 screws, on the bottom of the side cabinet.
2. Slide and pull the side cabinet backward and remove.
3. Remove the another side cabinet, repeat steps 1 and 2.

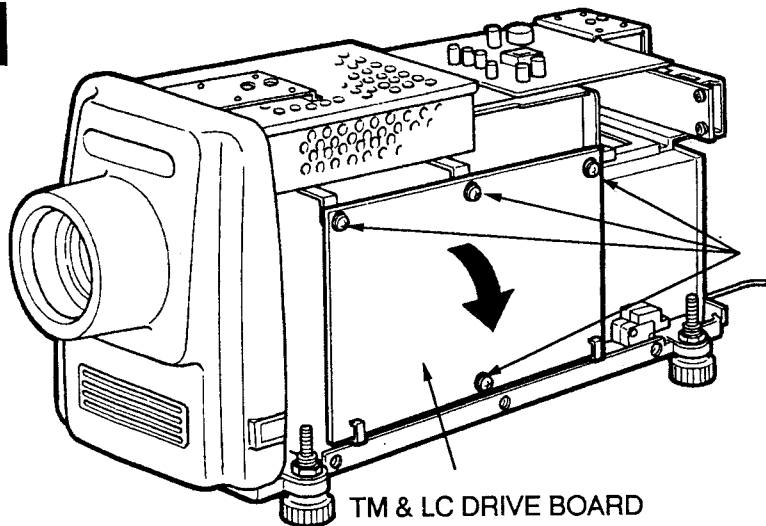
3



TOP CABINET REMOVAL

1. Remove 4 screws, on the top cabinet.
2. Slide and pull the top cabinet backward and remove.

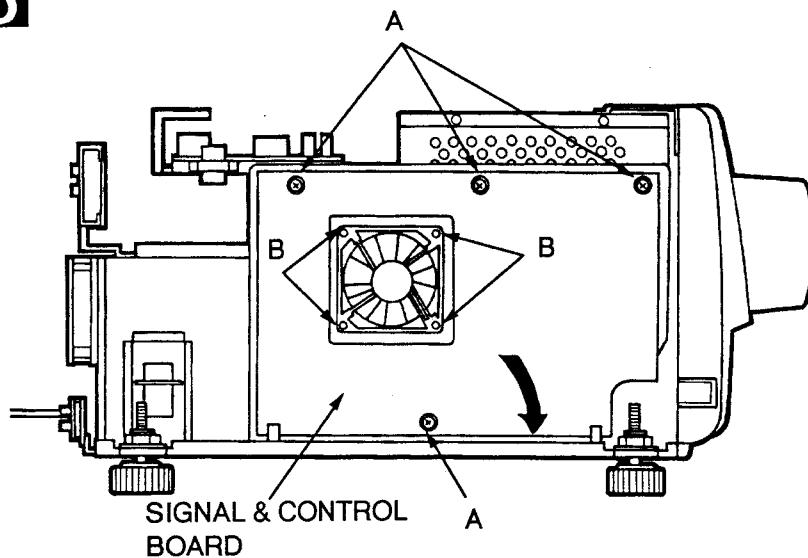
4



TM & LC DRIVE BOARD EXTEND
(when checking circuits and adjustments)

1. Remove 4 screws on the TM & LC DRIVE board.
2. Gently extend the TM & LC DRIVE board forward.

5



SIGNAL & CONTROL BOARD EXTEND
(when checking circuits and adjustments)

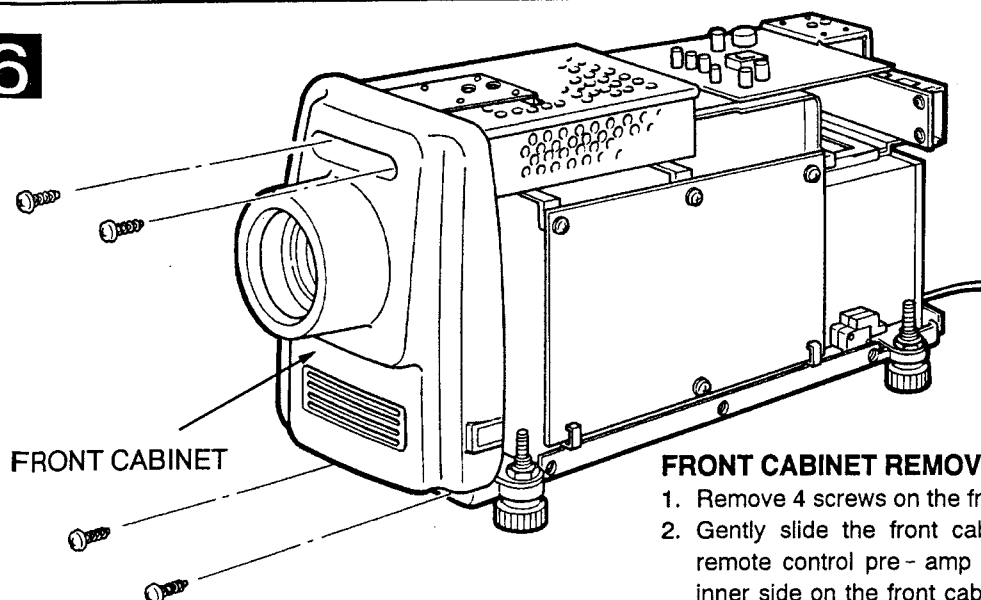
1. Remove 4 screws(A) on the Signal & Control board.
2. Gently extend the Signal & Control board forward.

SIDE FAN REMOVAL

(when replacing the fan, Red and Green LCD panel, or convergence adjustment.)

Remove 4 screws (B) on the corner of the side fan.

6

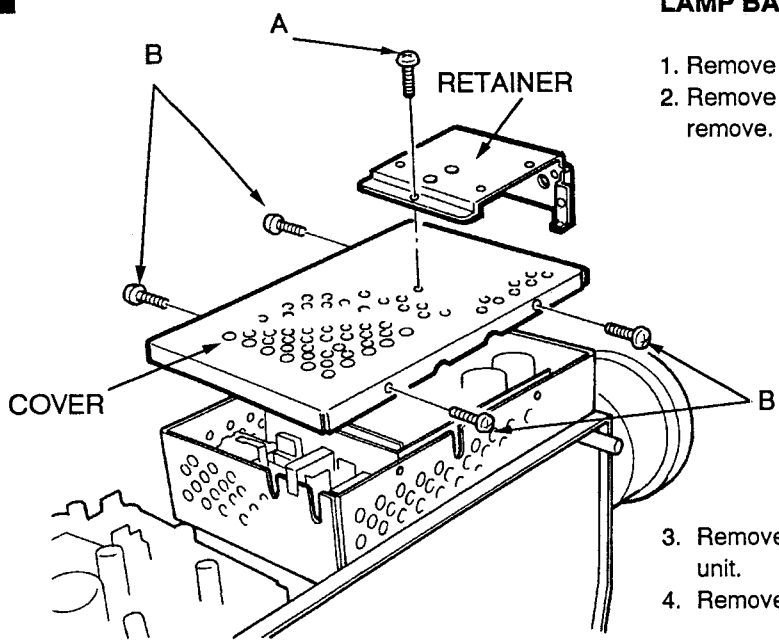


FRONT CABINET REMOVAL

1. Remove 4 screws on the front cabinet.
2. Gently slide the front cabinet, then disconnect the 2 remote control pre - amp connectors on the bottom of inner side on the front cabinet and remove 4 screws on the speaker, remove the speaker from front cabinet.
3. Pull out the front cabinet and remove.

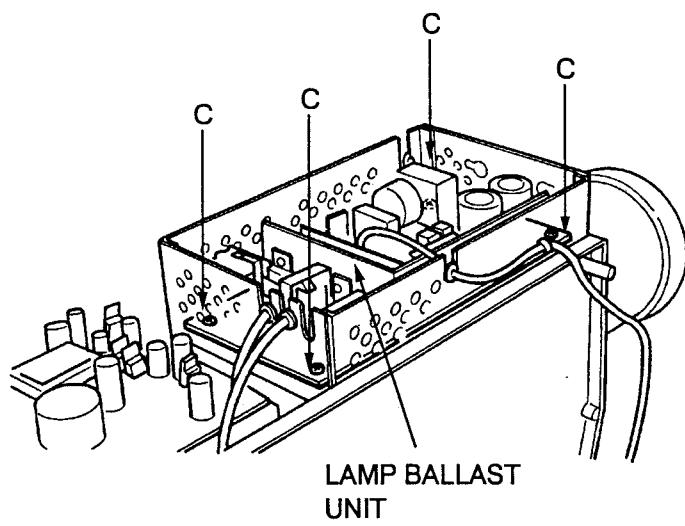
7

LAMP BALLAST UNIT REMOVAL



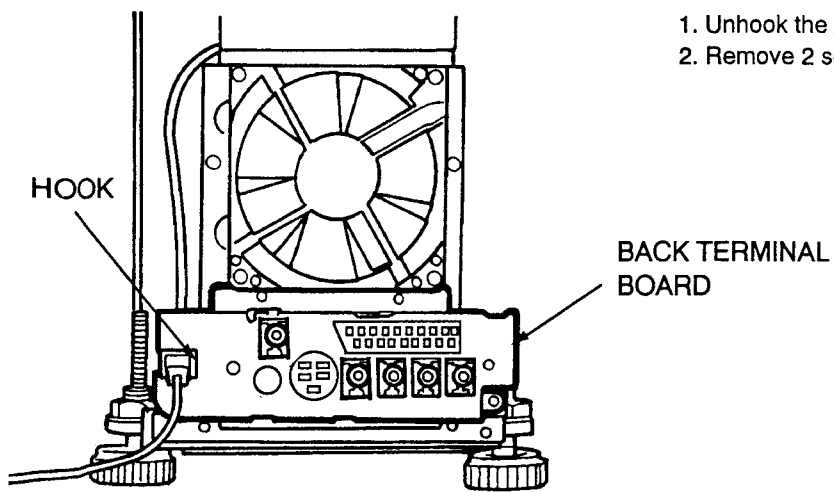
1. Remove screw - A, then remove the retainer.
2. Remove 4 screws - B, then pull out the cover and remove.

3. Remove 4 screws - C, on the corner of the Lamp ballast unit.
4. Remove the Lamp ballast unit from the case.



8

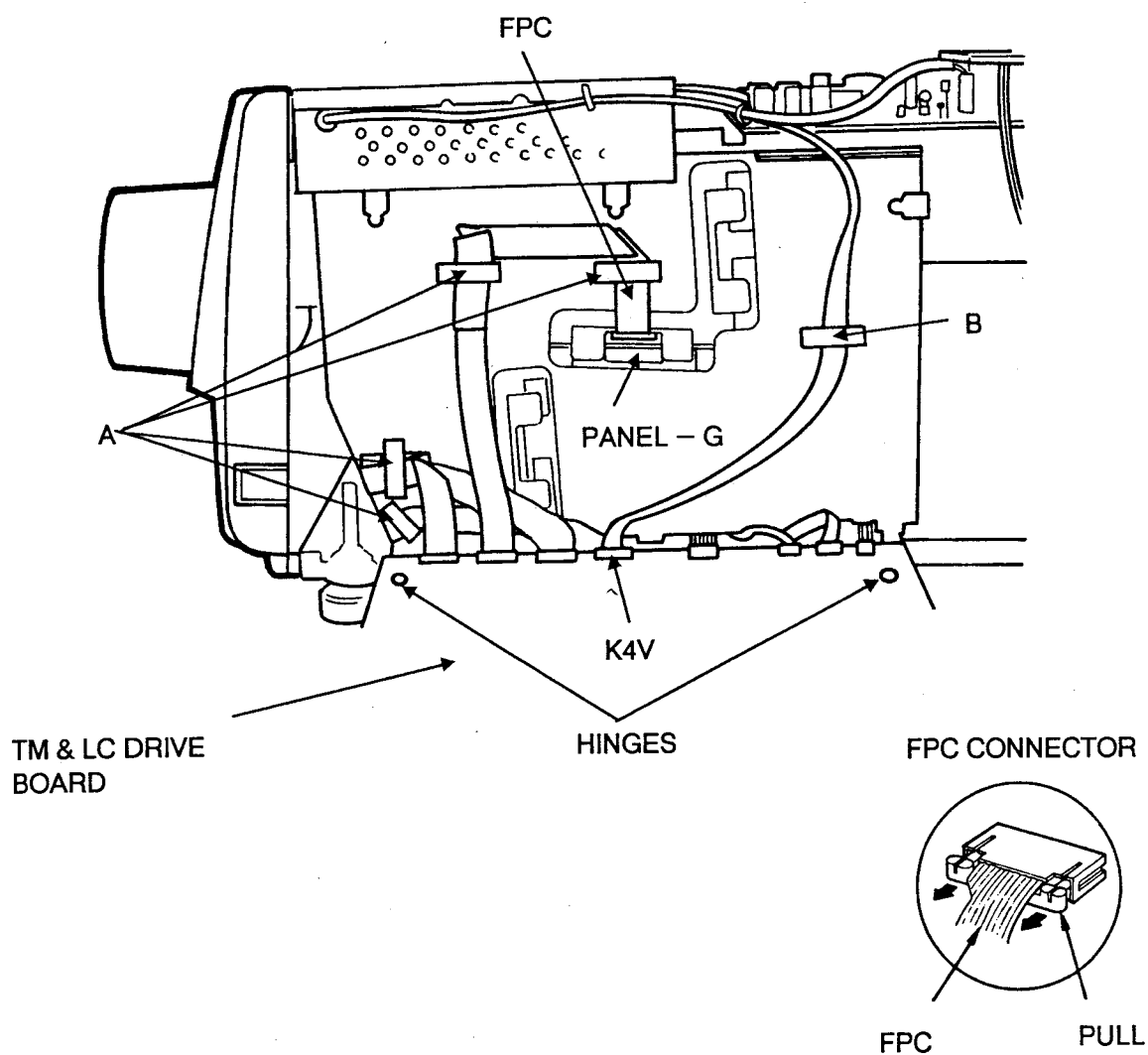
BACK TERMINAL BOARD REMOVAL



1. Unhook the AC cord from the Back terminal board.
2. Remove 2 screws, then remove the Back terminal board.

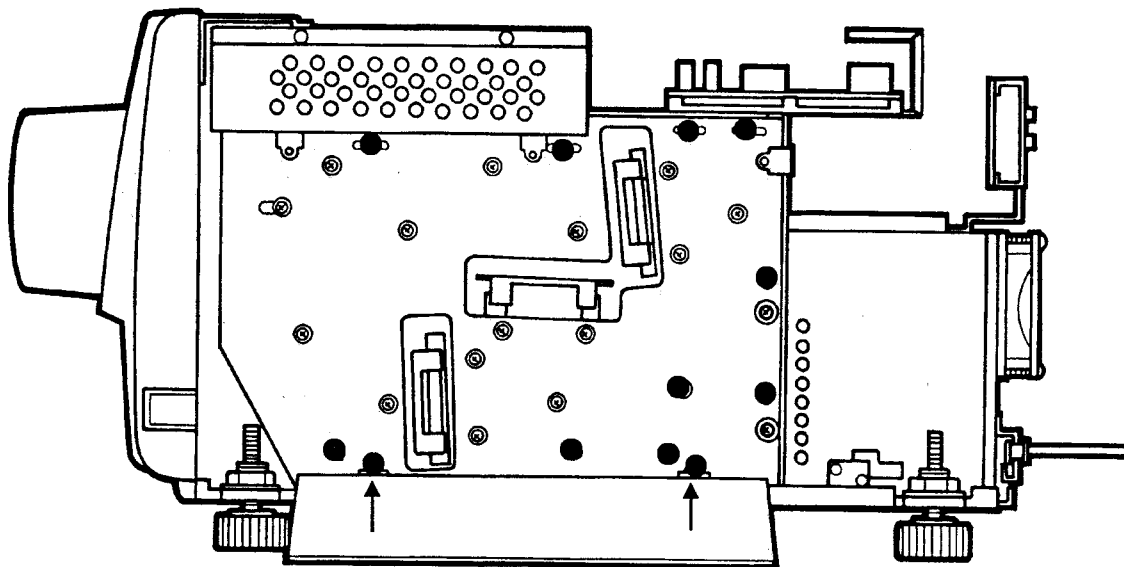
TM & LC DRIVE BOARD REMOVAL

1. Unfasten the FPC from the 4 wire holders - A.
2. Disconnect the FPC from the FPC Connector of Panel - G.
(Refer to below figure.)
3. Push the 2 Hinges, then remove the TM & LC DRIVE board.
4. Unfasten the wire from the wire holder - B. Disconnect the Connector "K4V" from the TM & LC DRIVE board.

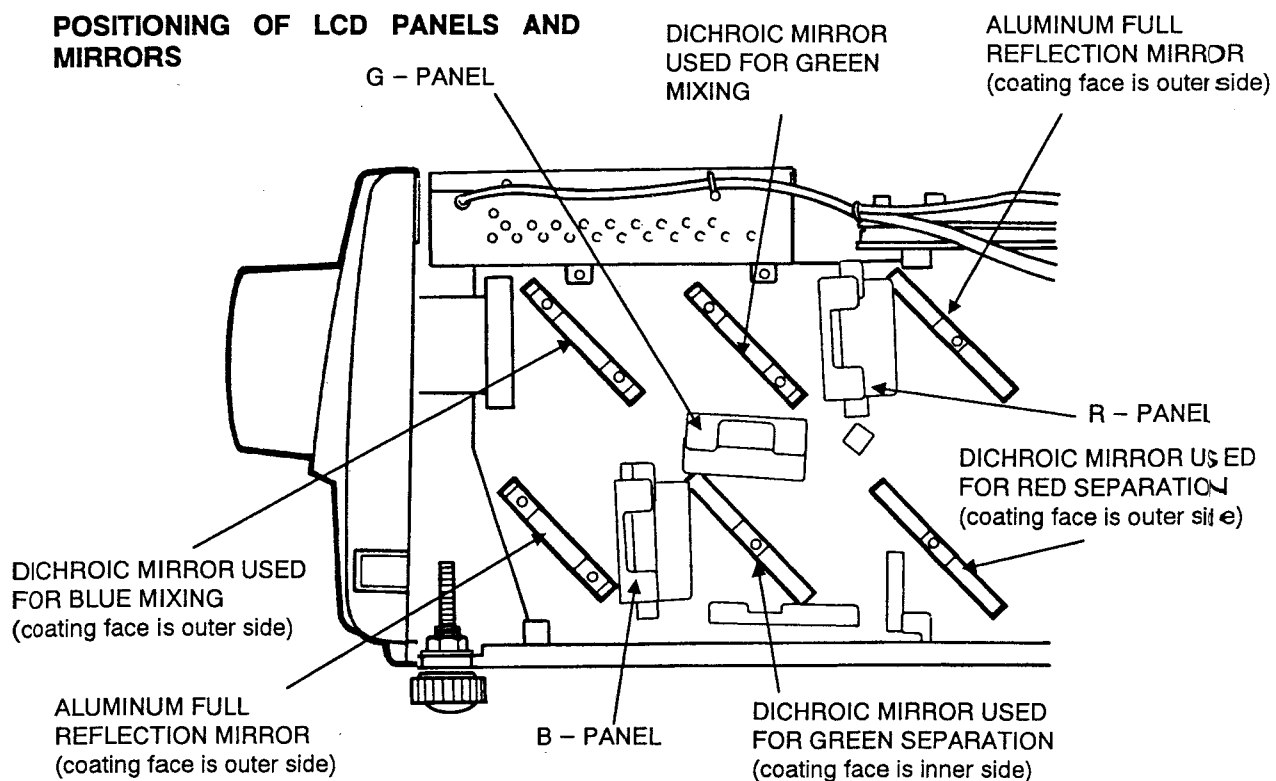


INSULATION PANEL REMOVAL

1. Remove 12 screws (large, ●), and 17 screws (small, ⊙) on the Insulation panel.
2. Gently remove the Insulation panel from the set.

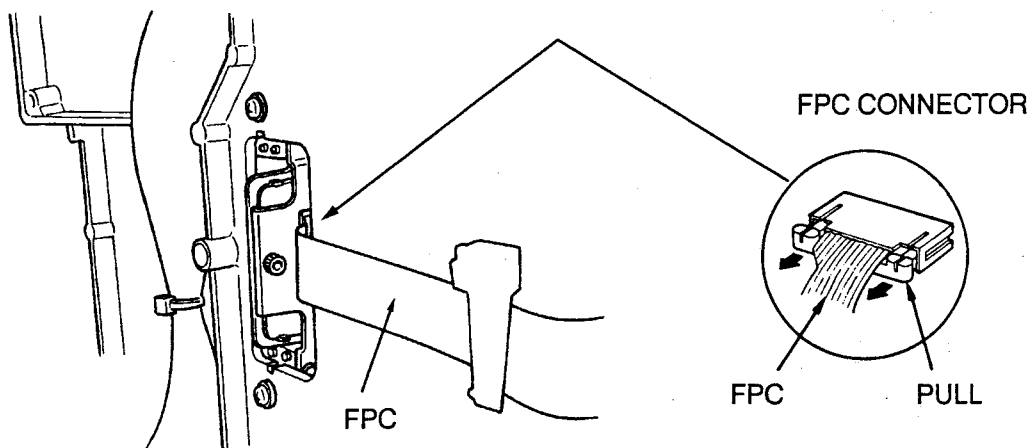
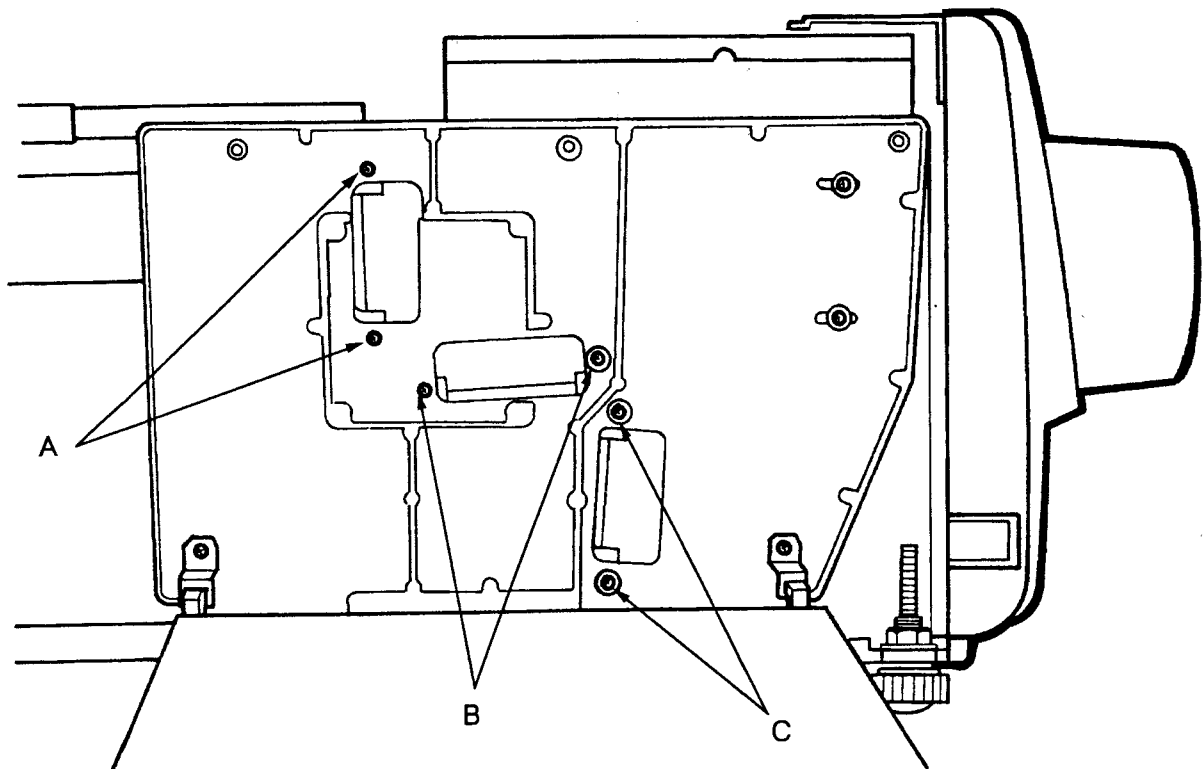


POSITIONING OF LCD PANELS AND MIRRORS



REMOVAL OF LCD PANELS

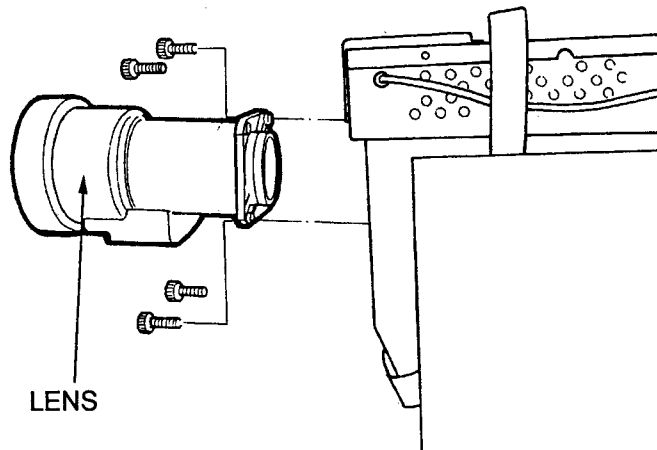
1. Reconnect the FPC when removing the R - Panel or B - Panel on the set.
2. IF changing the LCD Panel, remove the 2 screws - A for the R - Panel, the 2 screws - B for the G - Panel, and the 2 screws - C for the B - Panel.



12

LENS REMOVAL

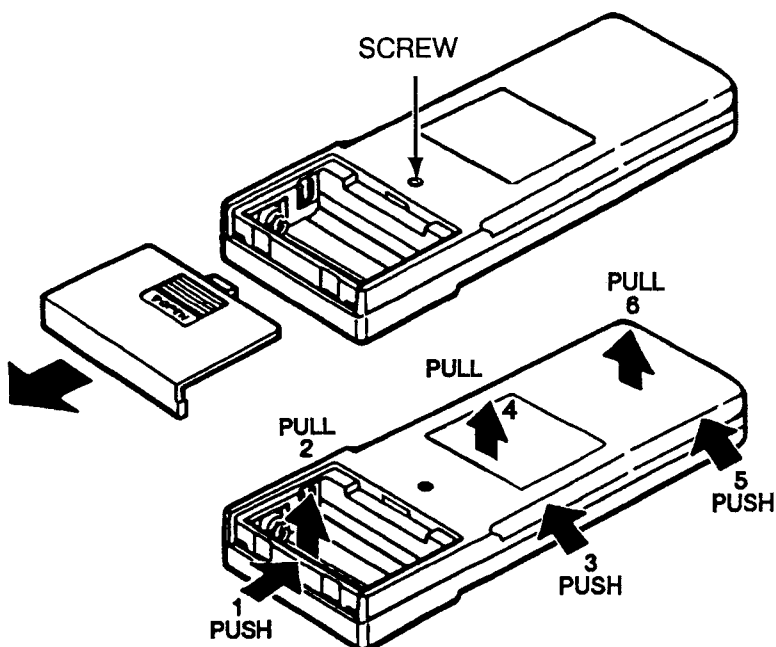
1. Keep holding the lens and remove 4 screws fixing the lens.
2. Remove the lens from the unit.



13

REMOTE CONTROL TRANSMITTER DISASSEMBLY

1. Press the battery cover downward and slide it off the back of the transmitter.
2. Remove the screw.
3. Push and pull the rear of cabinet bottom, then push and pull the side of cabinet bottom, and remove the cabinet bottom.



LCD PANEL REPLACEMENT

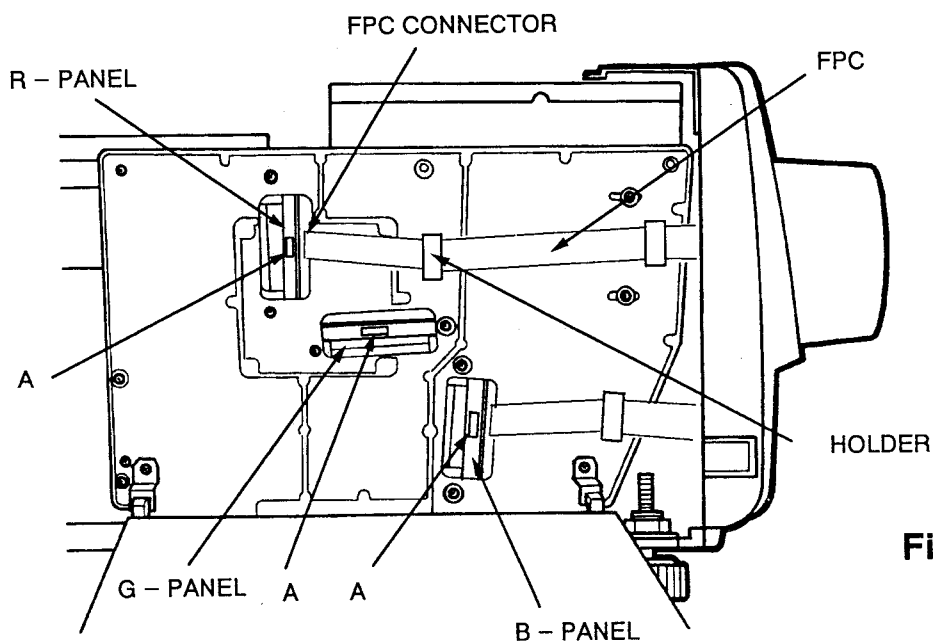
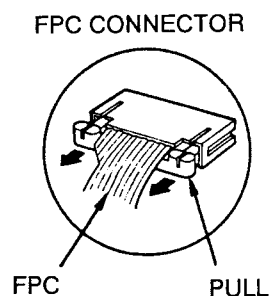
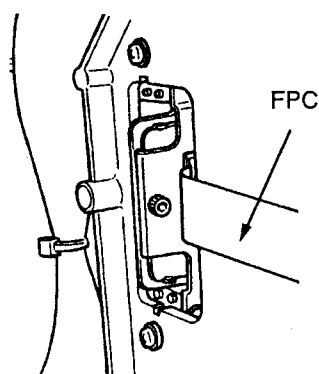


Figure 1



1. Remove the FPC cable holder, then remove the FPC cable from the LCD panel being replaced. (Refer to below Fig.)
For G (green) LCD panel replacement, remove the cable after removing the LCD panel. (Refer to Fig.1)
2. On the side of the set shown in Fig.1, loosen the screw "A" (only one) holding the LCD panel being replaced.
3. Remove the two screws from the panel to be replaced on the opposite side of the set as that shown in Fig.1. (Refer to Fig.2 and Fig.3)
For replacement of the G (green) LCD panel, remove the FPC cable holder at this point.
4. Pull the LCD panel out from the set. (Refer to Fig.3)
For replacement of the G (green) LCD panel, remove the FPC cable from the panel at this point.
5. Remove the 4 screws on the LCD panel, and remove the LCD panel from the panel retainer. (Refer to Fig.4)
6. For installation of the new panel, reverse the above procedures.

After replacing an LCD panel, check the focus (refer to Focus Adjustments) and adjust the convergence (refer to Convergence Adjustment).

When replacing the R - LCD panel, check the R focus and adjust the convergence.

When replacing the B - LCD panel, check the B focus and adjust the convergence.

When replacing the G - LCD panel, after checking the G focus, also check the R and B convergence.

Adjust the R and B convergence if either one is out of alignment. (Alignment of G with R and B can also be made by adjusting the position of the G panel.)

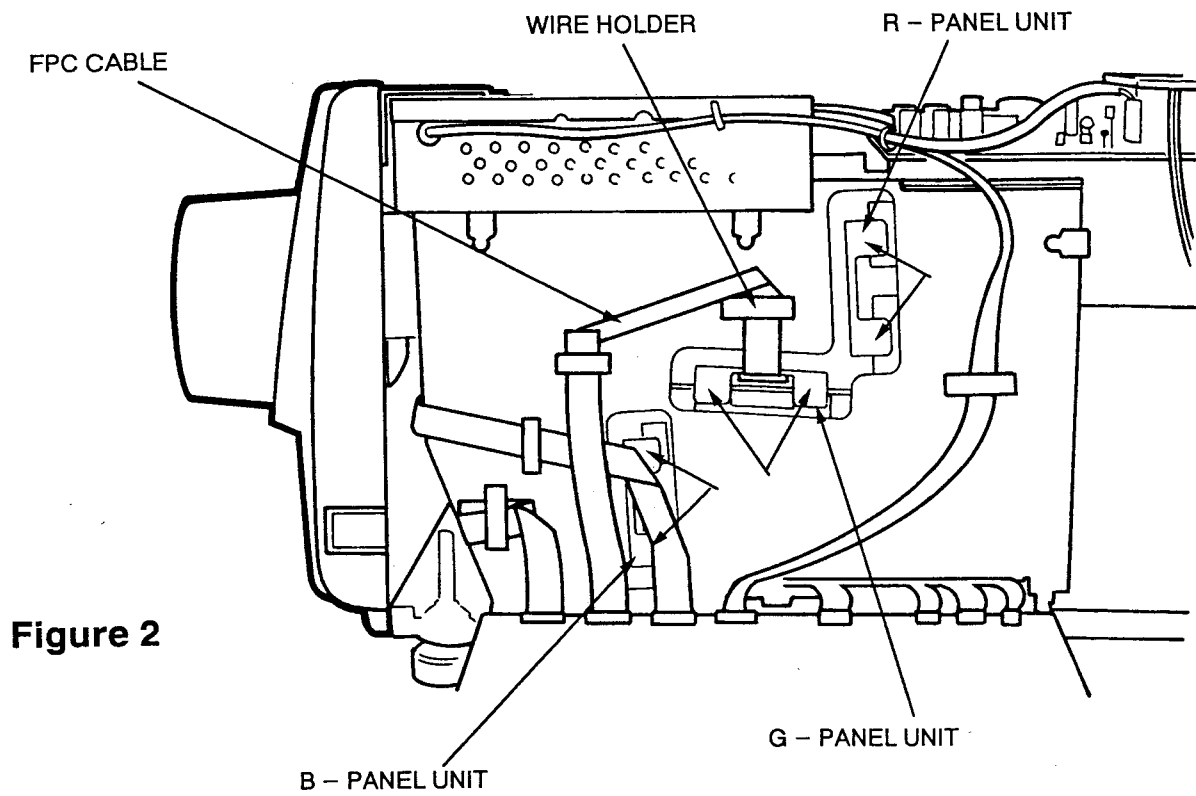
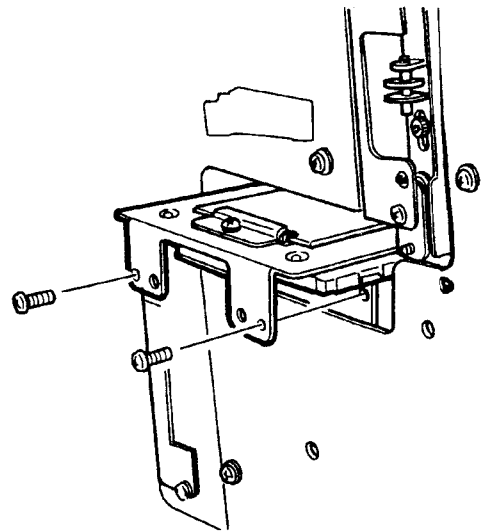
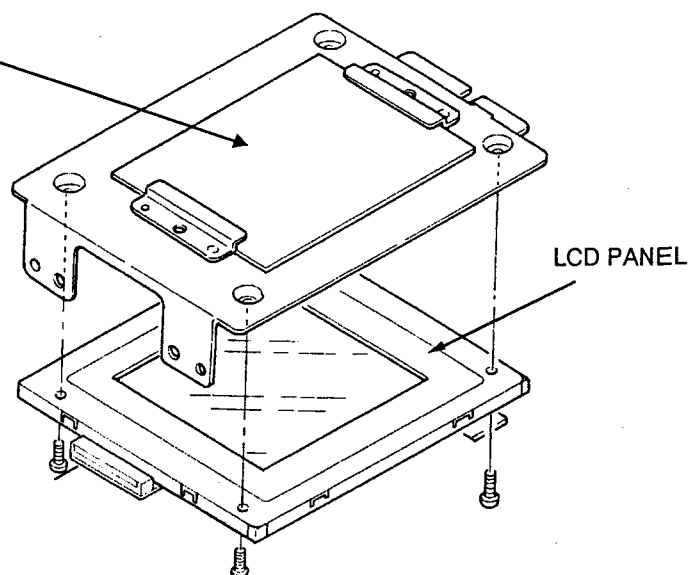


Figure 3

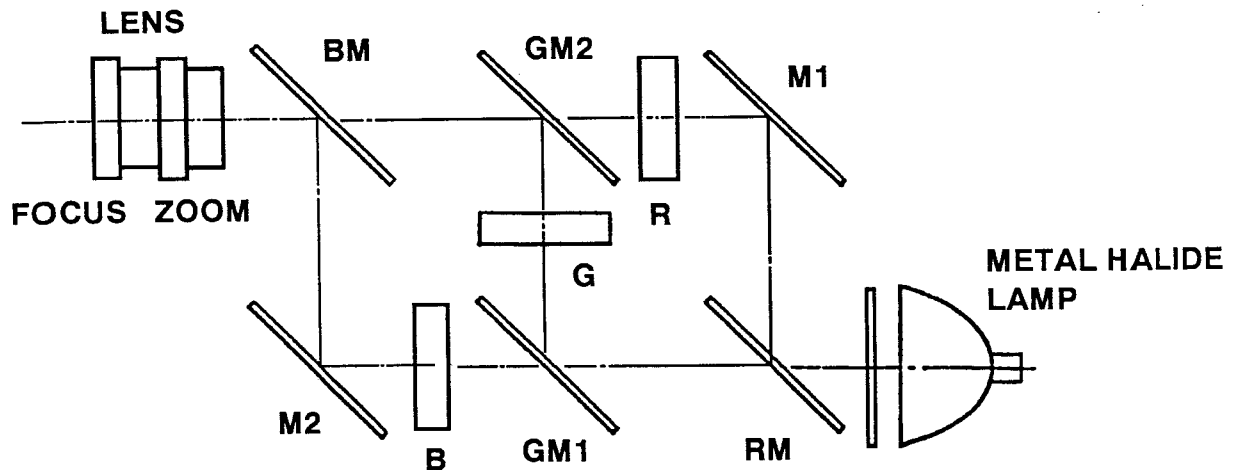


Caution;
Coating face is inner side
(LCD panel side).

Figure 4



OPTICAL ADJUSTMENTS



Optical path adjustment

● Preparation before adjustment.

1. Place lamp, M1, M2, BM, GM1, GM2, RM and lens at right position.
2. Make sure that M2, BM, GM2, RM is placed at 45 degree with optical path and 90 degree with base.

● Optical path adjustment.

1. Turn the lamp on and place screen in front of projection lens and show the lamp image on the screen.
2. If the blue lamp image is off from the green lamp image at 90 degree angle (vertical) when masking the red lamp, rotate GM1, and if the lamp image is off at horizontal direction, adjust mounting angle against base.
3. If the blue lamp image is off from the red lamp vertically when masking the green lamp, rotate M1 and if that is horizontal, adjust mounting angle against base.

This adjustment is only for R.G.B. optical path, and not for centering the beam.

Lens position adjustment.

1. Insert paper, etc. in locations B and C as indicated in Fig. 1 (Next page) to block the B light and R light, and project only the G light.
2. Loosen screws "X", "Y" and "Z" as indicated in Fig.1 and Fig.2 (on the pages 28 and 29).
3. Focus with zoom lens at Tele. side.
4. Adjust lens position for the best focus with zoom lens at wide side. Temporarily tighten screw "X", "Y" and "Z".
5. Try 2 and 3 a few times and find out the best focus position and fix the lens. Tighten screws "X", "Y" and "Z".

FOCUS ADJUSTMENTS

When conducting focus adjustment, first adjust the G (green) LCD panel unit as the standard reference, then adjust the lens position without causing any misalignment to the G (green) zooming focus. Next align the focus for R (red) and B (blue) by adjusting the position of each panel unit.

For adjustment, the setting configuration for the unit is as shown in Fig.1 and Fig.2.

The pattern signal used for adjustment should be a pattern in which the R, G and B dots are easily distinguishable. (A flat pattern, etc.)

G - LCD Panel Unit Position Adjustment (G Focus Adjustment)

1. Turn on the power to the unit, and project the adjustment pattern on the screen.
2. Insert paper, etc. in locations B and C as indicated in Fig.1 to block the B light and R light, and project only the G light. Using the remote control focus, adjust the focus so the left side of the pattern on the screen is sharp focus.*
3. Loosen screws "1" (Fig.1) and screws "2" (Fig.2). Move the G panel unit (on the side shown in Fig.1) up or down until the right side of the screen is in sharp focus. Tighten screws "1" (Fig.1) and screws "2" (Fig.2).

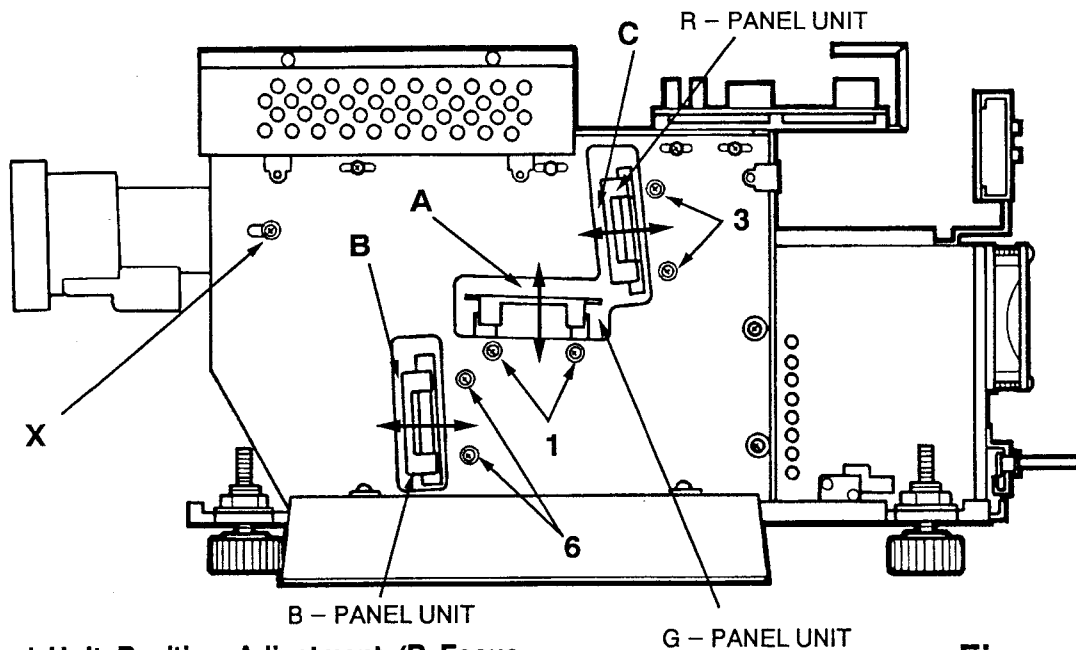


Figure 1

R - LCD Panel Unit Position Adjustment (R Focus Adjustment).

Before conducting the R focus adjustment, make sure the G focus adjustment has already been completed.

1. Temporarily tighten the R panel unit holding screws "3", "4" and "5" (shown in Fig.1 and Fig.2) in their midway positions in the screw slots.
2. Insert paper, etc. in locations A and B as indicated in Fig.1 to block the G light and B light, and project only the R light. Using the remote control focus, adjust the focus until the middle left side of the pattern on the screen is in the best focus.
3. Loosen screws "3" (Fig.1) and screw "4" (Fig.2). Move the lower part of the R panel unit forward or backward until the upper left hand side of the screen is in sharp focus. For adjustment, insert a slot head screwdriver in the adjustment slot provided in the screw "4" mount, and perform the same method as the R panel unit. Temporarily tighten screw "4".

4. Loosen screw "5" (Fig.2) and move the upper part of the R panel unit forward or backward until the lower left of the screen is in sharp focus. Temporarily tighten screw "5".
5. Repeat steps 3 and 4 until the left hand R focus is in the best position possible, then tighten screws "4" and "5".
6. Move the R panel unit forward or backward on the side shown in Fig.1 until the right hand side of the screen is in sharp focus. Tighten screws "3". (Fig. 1)

* Sharp Focus A single dot being clearly distinguishable on the screen.

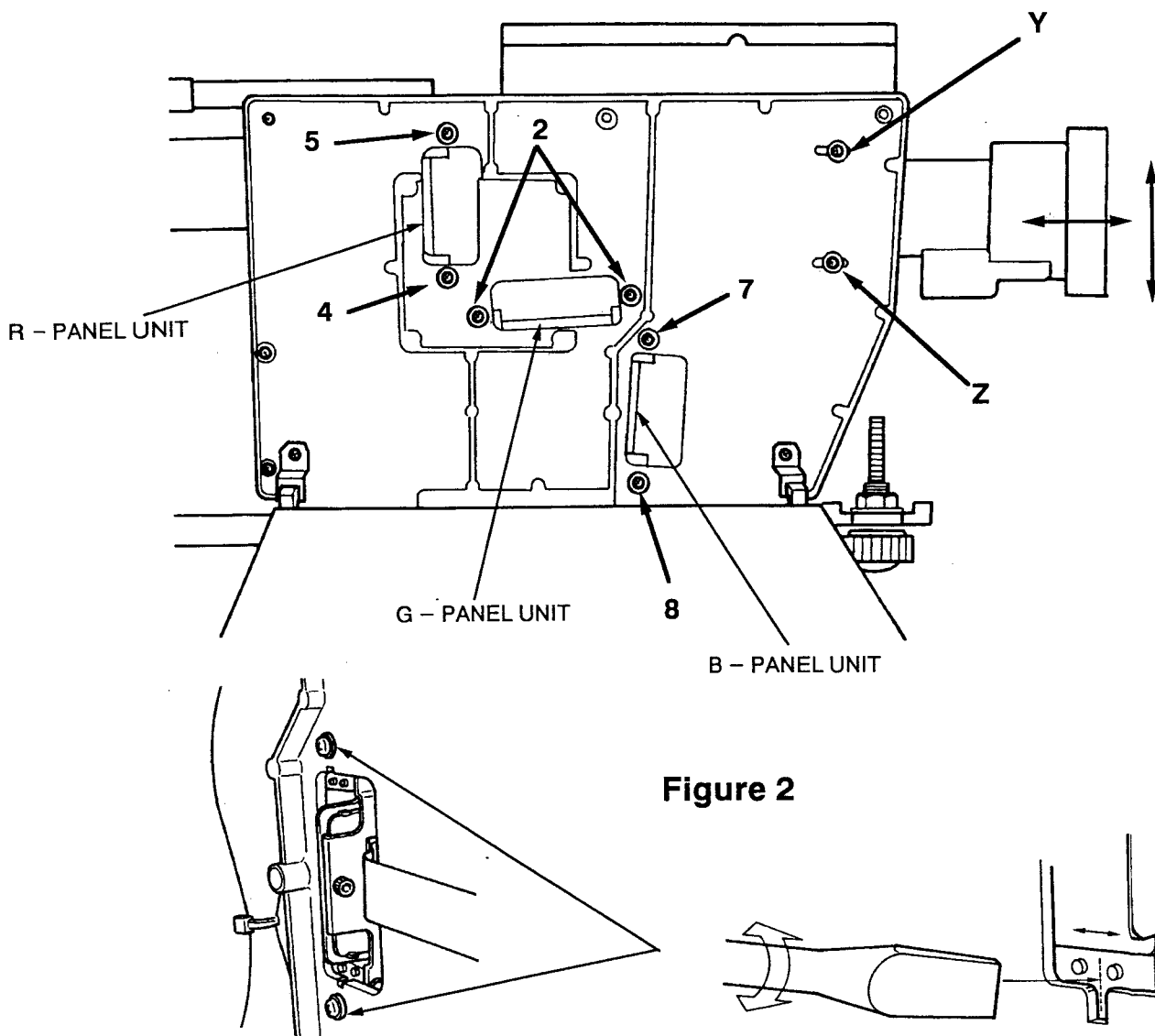


Figure 2

B - LCD Panel Unit Position Adjustment (B Focus Adjustment).

Before conducting the B focus adjustment, make sure the G focus adjustment has already been completed.

1. Temporarily tighten the B panel unit holding screws "6", "7" and "8" (shown in Fig.1 and Fig.2) in their midway positions in the screw slots.
2. Insert paper, etc. in locations A and C as indicated in Fig.1 to block the G light and R light, and project only the B light. Using the remote control focus, adjust the focus until the middle left side of the pattern on the screen is in the best focus.
3. Loosen screws "6" (Fig.1) and screw "8" (Fig.2). Move the lower part of the B panel unit forward or backward until the upper left hand side of the screen is in sharp focus. For adjustment, insert a slot head screwdriver in the adjustment slot provided in the screw "8" mount, and perform the same method as the B panel unit. Temporarily tighten screw "8".
4. Loosen screw "7" (Fig.2) and move the upper part of the B panel unit forward or backward until the lower left of the screen is in sharp focus. Temporarily tighten screw "7".
5. Repeat steps 3 and 4 until the left hand B focus is in the best position possible, then tighten screws "7" and "8".
6. Move the B panel unit forward or backward on the side shown in Fig.1 until the right hand side of the screen is in sharp focus. Tighten screws "6".(Fig. 1)

CONVERGENCE ADJUSTMENTS

For convergence adjustment, with G (green) as the reference standard, align R and B by adjusting the position and angle of the R (red) and B (blue) LCD panels.

Before Adjustment:

Make sure each R, G, B LCD panel unit has been correctly installed, and that all focus adjustments have been completed before performing convergence adjustments. (See Focus Adjustments)

Below is an explanation regarding adjustment screws and panel movement.

Screws "1" and "2" shown in Fig.3 and Fig.4, hold the LCD panels in place (hex hole screws).

Screws "A", "B" and "C" shown in Fig.4 are for convergence adjustment.

The movement of the R and B patterns using the "A", "B" and "C" screws is as follows:

R Panel Adjustment

1. Insert paper, etc. in location A shown in Fig.2 to block the B light.

2. Loosen screws "1" and "2" on the R panel. (Refer to Fig.3 and 4)

3. Using screws "A" and "B" (Fig.4), align the R grid pattern vertical center line parallel with the G grid pattern vertical center line (at this time the horizontal line will also be parallel).

Adjust the "A", "B" screws with a slot type screwdriver.

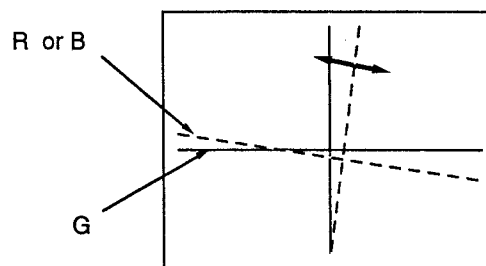
4. Turn both "A" and "B" screws in the same direction to align the R vertical center line on top of the G vertical center line. Repeat procedures 3 and 4 if necessary.

5. Turn screw "C" by hand to align the R horizontal center line on top of the G horizontal center line.

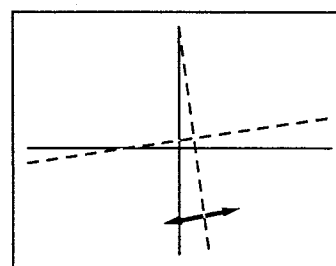
6. By repeating steps 3 thru 5, align the R grid pattern directly on top of the G grid pattern.

Convergence adjustment is always made on the center of the grid pattern. There may be some color misalignment on the periphery of the screen.

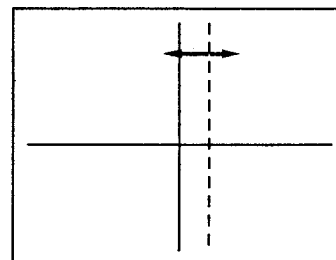
7. Tighten the R panel screws "1" and "2" when adjustment has been completed.



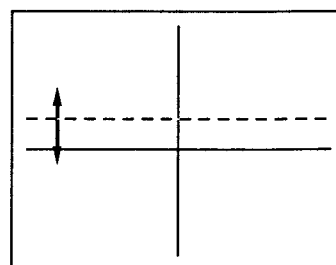
Screw A



Screw B



Screws A and B



Screw C

B Panel Adjustment

1. Insert paper, etc. in location B shown in Fig.2 to block the R light.

2. Loosen screws "1" and "2" on the B panel. (Refer to Fig.3 and 4)

3. The adjustment procedures for aligning the B grid pattern on top of the G grid pattern are the same as those for the R panel.

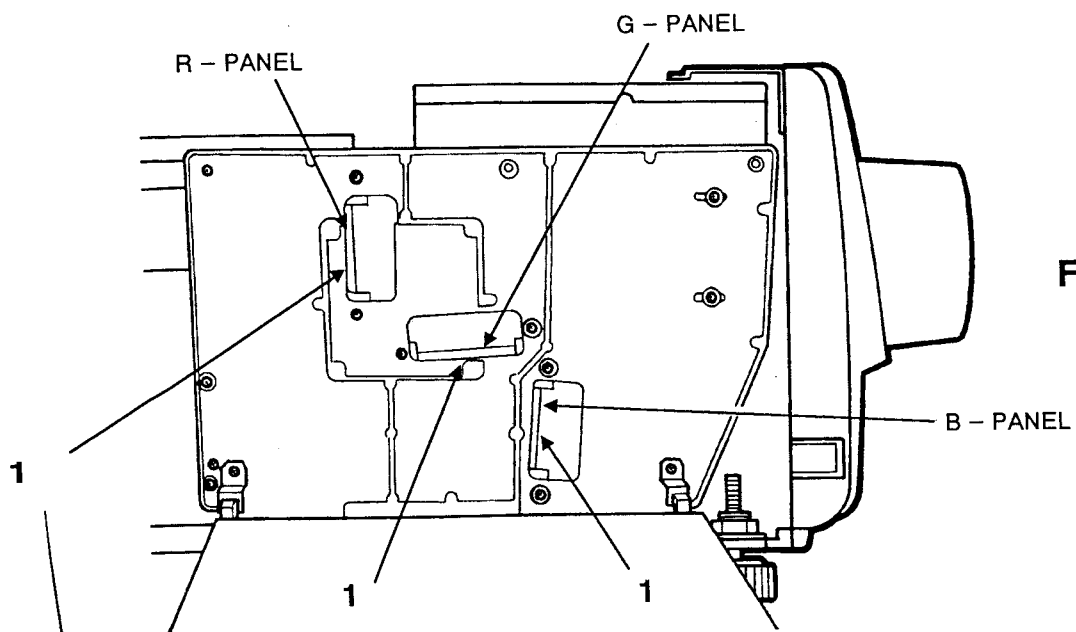


Figure 1

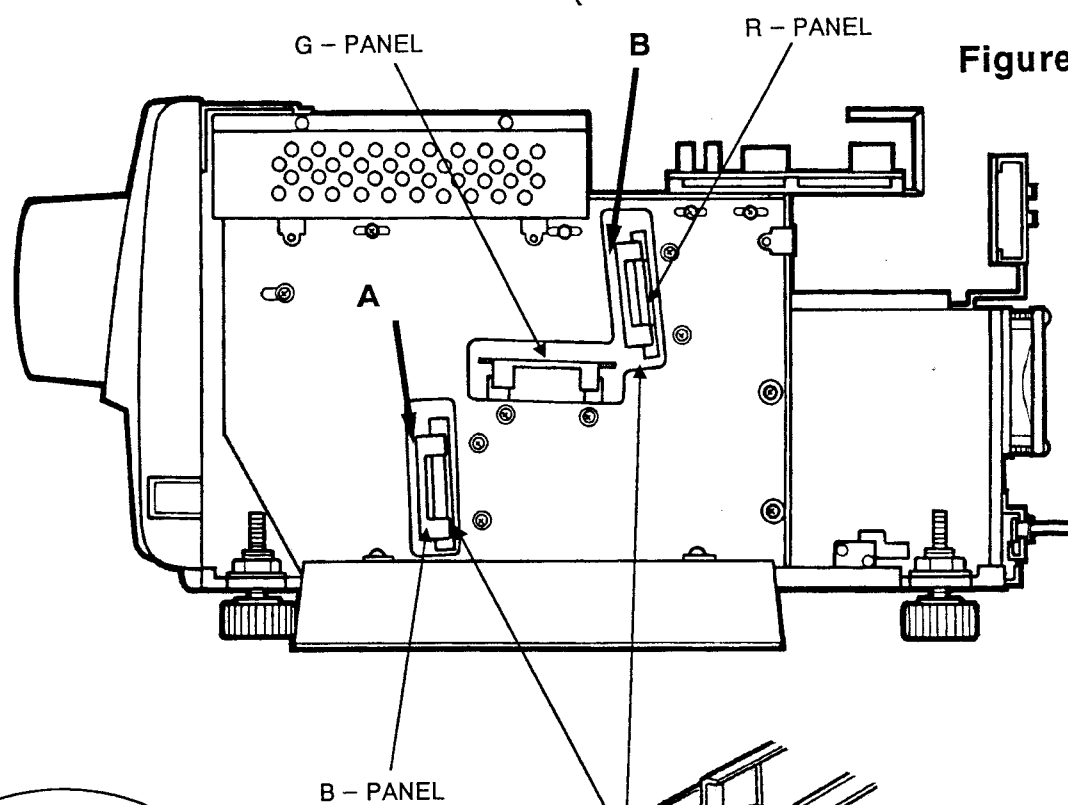


Figure 2

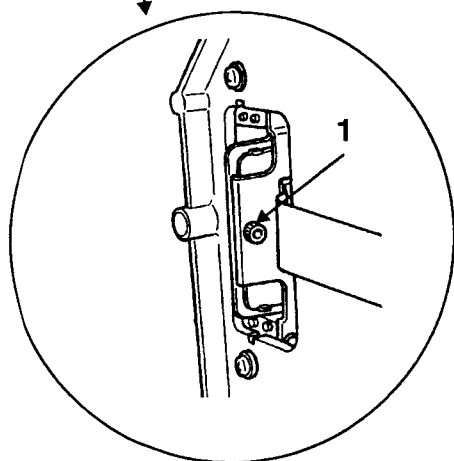


Figure 3

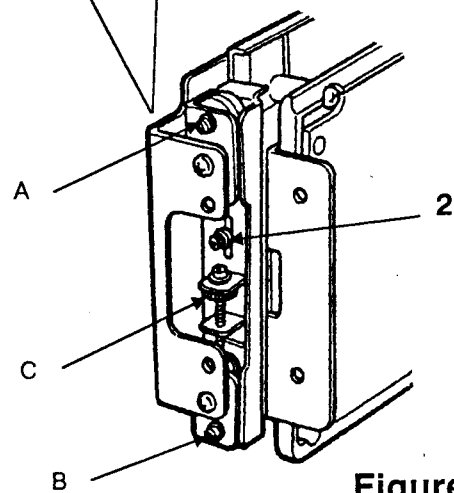


Figure 4

CLEANING METHODS

After long periods (many years) of use, dust and particles and other contamination will accumulate on the LCD panels, lens, mirror, etc. and the picture will tend to darken and color blurring may occur.

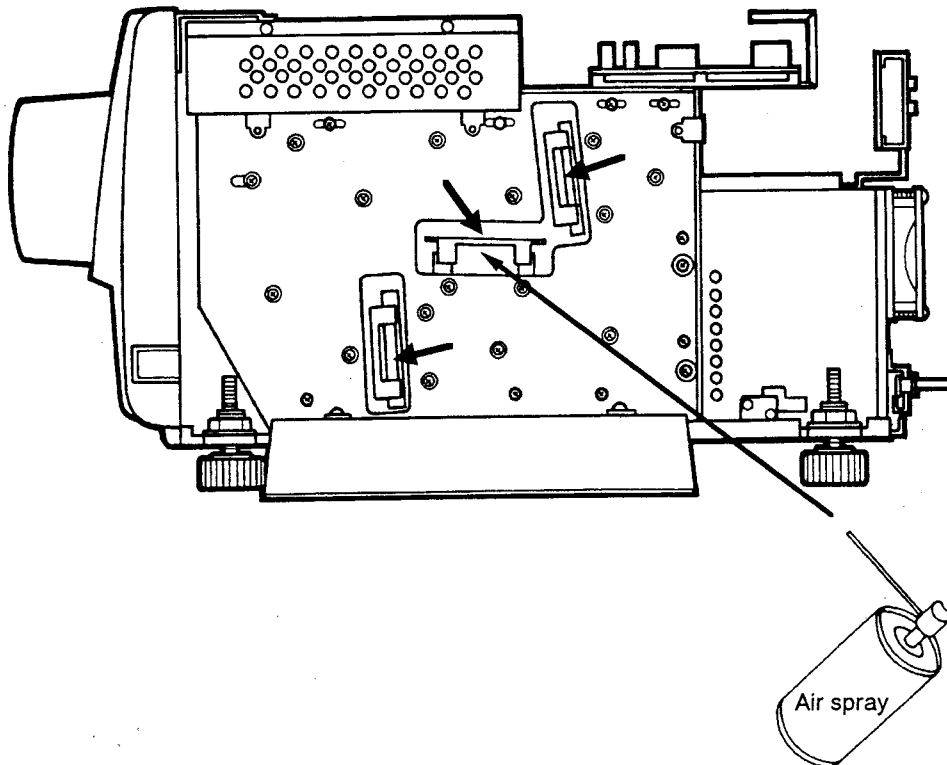
When this occurs, cleaning of the inside of the unit will be necessary. For dust and light accumulation of contamination, use an air spray to remove the dust. If the contamination cannot be removed by air spray, disassembly and cleaning of the unit will be necessary. Perform all cleaning according to the cleaning methods given below.

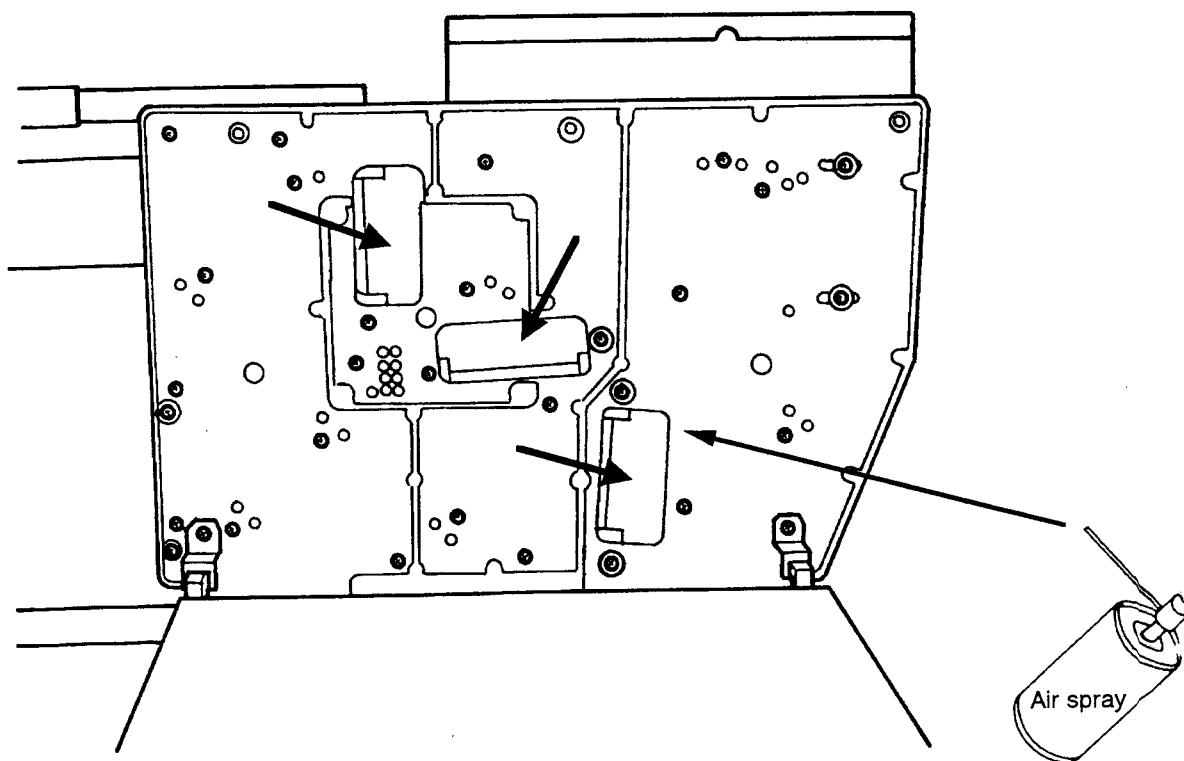
Caution:

Use a commercial (insert gas) air spray designed for camera cleaning use. Never use any cleaner other than that specified for cleaning the LCD panels, lens, mirror or polarizing plate. Also, never scrape with any hard material as this will cause damage.

Air Spray cleaning Method

Remove dust from the LCD units by inserting the air spray nozzle in the openings on both sides of the sets holding the LCD units. (Caution: Always use a nozzle made of resin. Also be very careful not to cause any damage to the LCD panel assembly parts with the nozzle tip.)





Disassembly cleaning Method

After performing disassembly cleaning, adjustment of the unit will be necessary.

Disassembly cleaning should only be performed when there is considerable contamination which cannot be removed by air spray.

Caution:

Never remove the mirror. The position of the mirror is precisely set at the factory. Perform all cleaning of the mirror with it attached to the unit.

Disassemble and clean the LCD panel units.

Disassembly and assembly of the LCD panel units is performed according to the exploded view diagrams given for each panel, cleaning of the mirror is always performed with it attached to the main unit.

Perform the cleaning of each part according to the cleaning methods described below.

● Polarizing Glass Lens

Remove dust, etc. by wiping with a soft cloth. For heavy contamination, remove by moistening the cloth with alcohol.

Caution:

Never use organic solvents (thinners, etc.) as their use will cause damage to these surfaces.

● LCD Panels

Never use water or other liquids on the LCD panels. If the liquid gets into the circuits, damage will result.

● Mirrors

Remove dust, etc. by wiping with a soft cloth. For heavy contamination, remove by moistening the cloth with alcohol.

Caution:

Never use organic solvents (thinners, etc.) as their use will cause damage to these surfaces.

SERVICE ADJUSTMENTS

+12 VOLT (ALWAYS) ADJUSTMENT

EQUIPMENTS	Digital voltmeter
CONNECTIONS	TP 12 (K6V – pin 7)
	TE 12 (ground)
INPUT SIGNAL	Standard video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: Adjust VR601 to read $12.5 \pm 0.1V$ DC.

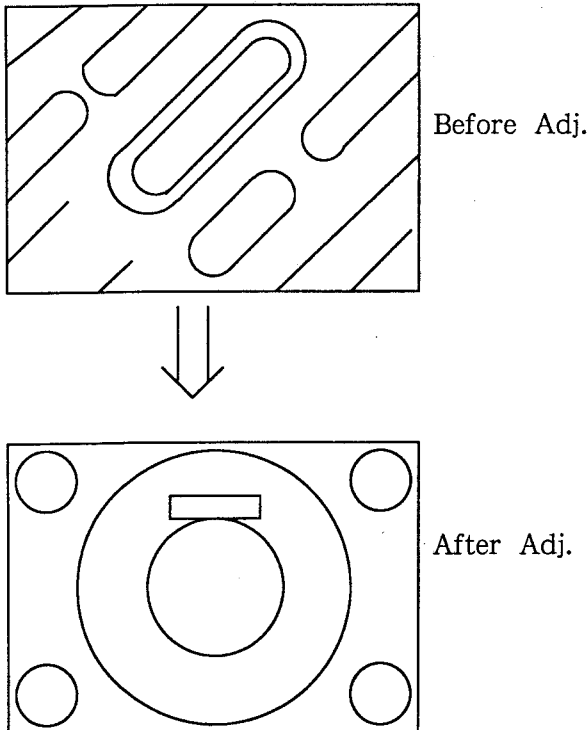
HORIZ. OSC. FREQUENCY ADJUSTMENT

EQUIPMENTS Short clip

CONNECTIONS TP 1F
TE 1E (ground)

INPUT SIGNAL PAL Circular video signal

ADJUSTMENT: Adjust VR1J1 to below.



PAL/NTSC COLOUR ADJUSTMENT

1. CW Adjustment

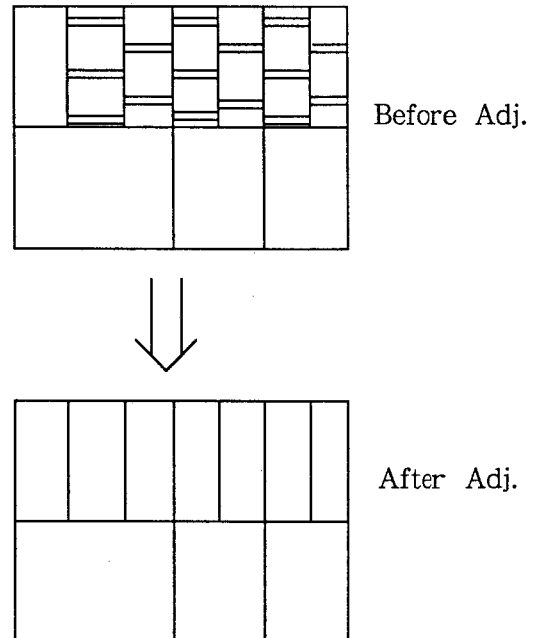
EQUIPMENTS Short clip

CONNECTIONS TP 1D
TE 1E (ground)

INPUT SIGNAL PAL/NTSC3.58 Colour video
signal

PICTURE CONDITION Normal position.

ADJUSTMENT: Adjust VC131(PAL) and VC132(NTSC3.58) to below.



2. PAL Colour Adjustment

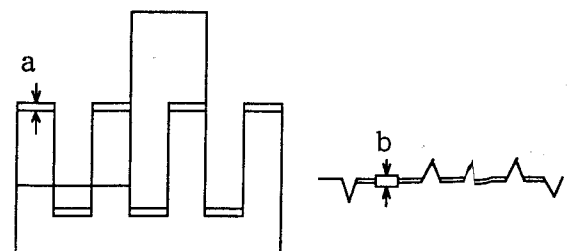
EQUIPMENTS Oscilloscope

CONNECTIONS TP 1BY
TE 1E (ground)

INPUT SIGNAL PAL Colour video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using T121 adjust the amplitude of "a" shown below to be minimum.
By using VR121 adjust the amplitude of "b" shown below to be minimum.



SECAM COLOUR ADJUSTMENT

1. Bell-Filter Adjustment

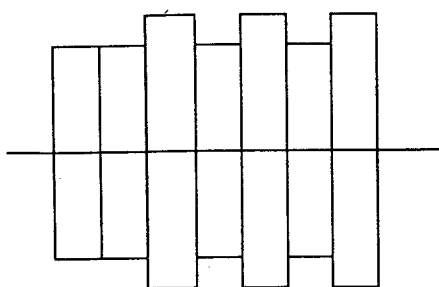
EQUIPMENTS Oscilloscope

CONNECTIONS TP 1A
TE 1E (ground)

INPUT SIGNAL SECAM Colour video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using T041 adjust the envelope of the below wave form to be most straight.



2. SECAM ID Adjustment

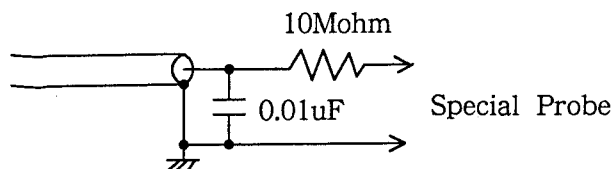
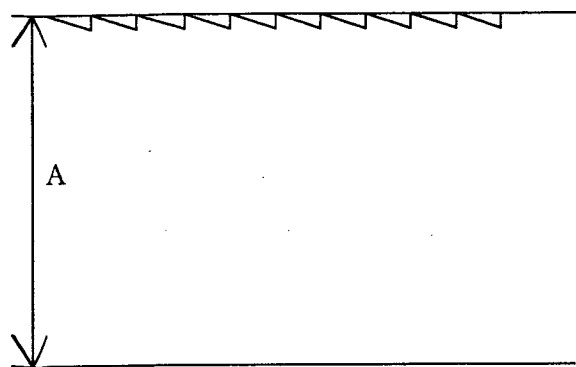
EQUIPMENTS Oscilloscope (Special Probe)

CONNECTIONS TP 1C
TE 1E (ground)

INPUT SIGNAL SECAM Colour video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using T131 adjust A to be maximum.



3. R-Y Adjustment

EQUIPMENTS Oscilloscope

CONNECTIONS TP RY
TE 1E (ground)

INPUT SIGNAL SECAM Colour video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using T112 adjust "a" must be same as Center line of "b".

4. B-Y Adjustment

EQUIPMENTS Oscilloscope

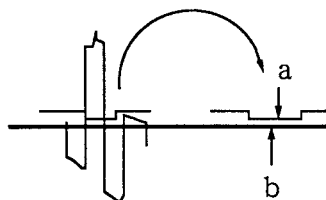
CONNECTIONS TP BY
TE 1E (ground)

INPUT SIGNAL SECAM Colour video signal

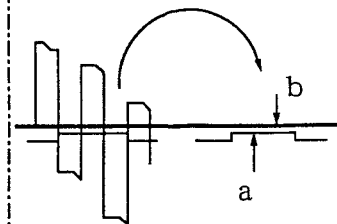
PICTURE CONDITION Normal position.

ADJUSTMENT: By using T111 adjust "a" must be same as Center line of "b".

4. R - Y Adj.



3. B - Y Adj.



BLANKING PULSE ADJUSTMENT

EQUIPMENTS Oscilloscope

CONNECTIONS TP 23V
TE 31E (ground)

INPUT SIGNAL PAL/NTSC Circular video signal

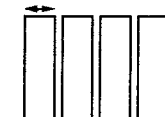
PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR481 (PAL)/VR482 (NTSC) adjust to the below.

PAL

1H x 4

1H



NTSC

1H x 6

1H



AD INPUT ADJUSTMENT

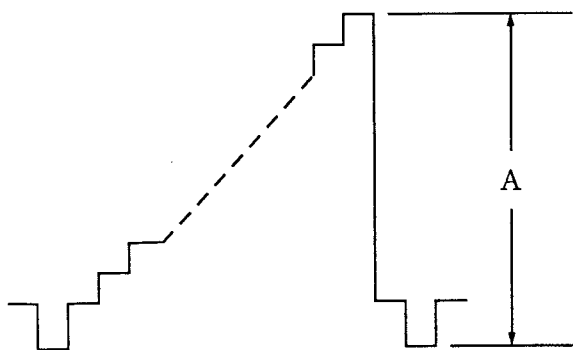
EQUIPMENTS Oscilloscope

CONNECTIONS TP 1G
TE 1E (ground)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR151 adjust A to be $3 \pm 0.2V_{pp}$



VCO OSC. ADJUSTMENT

1. VCO (18KHz) Adj.

EQUIPMENTS Digital voltmeter

CONNECTIONS TP 4D
TE 4E(ground)

INPUT SIGNAL PAL Circular video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using T421, adjust TP 4D-TP 4E to be $2.5 \pm 0.1V$.

2. VCO (15KHz) Adj.

EQUIPMENTS Digital voltmeter

CONNECTIONS TP 4F
TE 4E(ground)

INPUT SIGNAL PAL Circular video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using T422, adjust TP 4F-TP 4E to be $2.5 \pm 0.1V$.

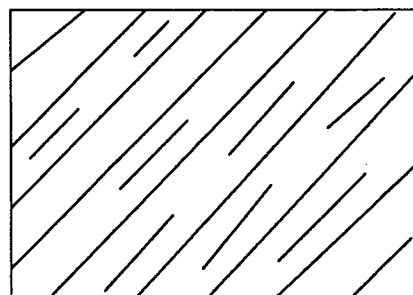
VCO FREE OSC. ADJUSTMENT

EQUIPMENTS Short clip X2

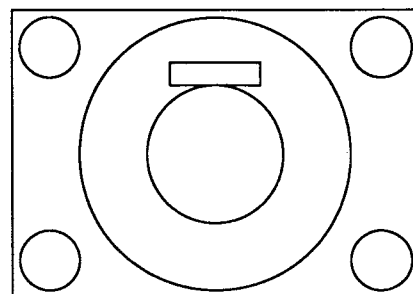
CONNECTIONS TP 4A, J872
TE 1E (ground)

INPUT SIGNAL PAL Circular video signal

ADJUSTMENT: Adjust T423 to below.



Before Adj.



After Adj.

D/A OUTPUT LEVEL ADJUSTMENT

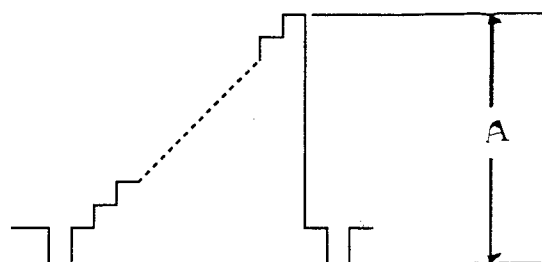
EQUIPMENTS Oscilloscope

CONNECTIONS TP 31R (R)
TE 31G (G)
TE 31B (B)
TE 31E (ground)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR2303 (R), VR2302 (G),
VR2301 (B) adjust A to be $1 \pm 0.02V_{pp}$



B - Y ADJUSTMENT

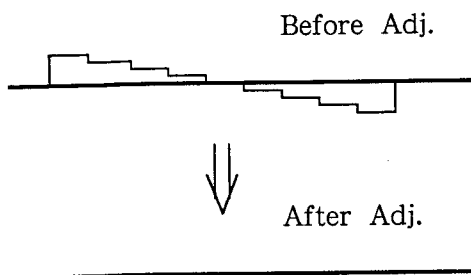
EQUIPMENTS Oscilloscope

CONNECTIONS TP 33C
TE 31E (ground)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR301, adjust the wave form to be straight.



SUB CONTRAST/BRIGHT ADJUSTMENT

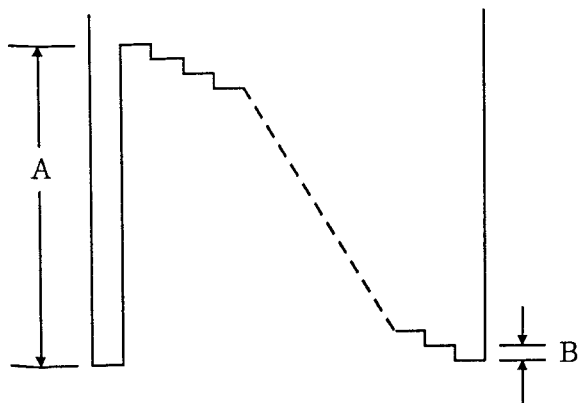
EQUIPMENTS Oscilloscope

CONNECTIONS TP 22G
TE 20E (ground)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR503, adjust A to be 6.4 ± 0.2 Vpp (Contrast) and by using VR210, adjust B to 2.0 ± 0.1 Vpp (Bright).



R & B GAIN ADJUSTMENT

EQUIPMENTS Oscilloscope

CONNECTIONS TP 22R (R GAIN CH1)
TP 22B (B GAIN CH1)
TP 22G (CH2)
TE 20E (ground)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR205, adjust Black-DC Level to be same. and by using VR202, adjust Black-White Level to be same. (R GAIN)
By using VR203, adjust Black-DC Level to be same. and by using VR201, adjust Black-White Level to be same. (B GAIN)

COMON AMP. ADJUSTMENT

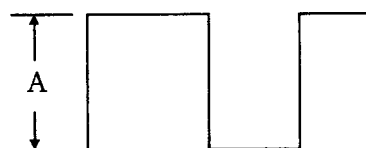
EQUIPMENTS Oscilloscope

CONNECTIONS TP 23G
TE 20E (ground)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR206, adjust A to be 6.4 ± 0.2 Vpp.



R.G.B. GATE VOLTAGE ADJUSTMENT

EQUIPMENTS Digital voltmeter

CONNECTIONS TP 52R (R +)
TP 22R (R -)
TP 52G (G +)
TP 22G (G -)
TP 52B (B +)
TP 22B (B -)

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION Normal position.

ADJUSTMENT: By using VR551(R), VR561(G), VR571(B), adjust to the voltage of PANEL ± 0.2 V.

R.G.B. COMON CENTER ADJUSTMENT

INPUT SIGNAL . . . Gray Scale video signal

PICTURE CONDITION . . . Normal position.

ADJUSTMENT: By using VR207(R), VR209(G), VR208(B),
adjust the picture to be darkest.

WHITE BALANCE ADJUSTMENT

INPUT SIGNAL Gray Scale video signal

PICTURE CONDITION . . . Normal position.

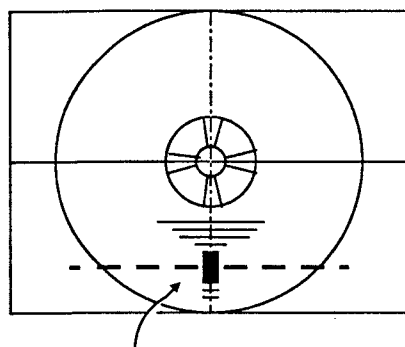
ADJUSTMENT: By using VR203(B-Bias Adj.) and VR205
(R-Bias Adj.), adjust to be balanced Gray
Scale.

O.S.D. CENTER ADJUSTMENT

INPUT SIGNAL NTSC Circular video signal

PICTURE CONDITION . . . Normal position.

ADJUSTMENT: By using VR803, adjust the center of OSD
to picture center.



Center Mark

REMOTE CONTROL TRANSMITTER SERVICE NOTE

To repair remote control transmitter, check as follows:

1. Check battery installation and battery voltage. If necessary, replace batteries.
2. Connect oscilloscope to Q1 "Base" and ground.
3. Check the amplitude pulse by pushing the remote control transmitter key in the due order.
4. If pulse does not appear, replace with a new unit.

CHASSIS ELECTRICAL PARTS LIST

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a Δ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Part order must contain Service Ref. No. , Part Ref. No. , Part No. ,and descriptions.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
<p>Read description in the Capacitor and Resister as follows:</p> <p>CAPACITOR CERAMIC 100P K 50V ————— Rated Voltage ————— Tolerance Symbols: Less than 10PF A: Not specified B: ± 0.1PF C: ± 0.25PF D: ± 0.5PF F: ± 1PF G: ± 2PF R: $\pm 0.25-0$PF S: $\pm 0-0.25$PF E: $\pm 0-1$PF More than 10PF A: Not specified B: $\pm 0.1\%$ C: $\pm 0.25\%$ D: $\pm 0.5\%$ F: $\pm 1\%$ G: $\pm 2\%$ H: $\pm 3\%$ J: $\pm 5\%$ K: $\pm 10\%$ L: $\pm 15\%$ M: $\pm 20\%$ N: $\pm 30\%$ P: $\pm 100-0\%$ Q: $\pm 30-10\%$ T: $\pm 50-10\%$ U: $\pm 75-10\%$ V: $\pm 20-10\%$ W: $\pm 100-10\%$ X: $\pm 40-20\%$ Y: $\pm 150-10\%$ Z: $\pm 80-20\%$ ————— Rated value: P=pico farad, U=Micro farad</p> <p>Material : CERAMIC.....Ceramic MT - PAPER.....Metallised Paper POLYESTER.....Polyester MT - POLYEST.....Metallized Polyester POLYPRO.....Polypropylene MT - POLYPRO.....Metallized Polypropylene COMPO FILM.....Composite film MT - COMPO.....Metallized Composite STYRENE.....Styrene TA - SOLID.....Tantalum Solid AL - SOLID.....Aluminium Solid ELECT.....Electrolytic NP - ELECT.....Non - polarized Electrolytic OS - SOLID.....Aluminium Solid with Organic Semiconductive Electrolytic DL - ELECT.....Doble Layered Electrolytic</p> <p>RESISTER CARBON 4.7K J A 1/4W ————— Rated Wattage ————— Performance Symbols: A:General B:Non flammable Z:Low noise Other :Temperature coefficient ————— Tolerance Symbols: A: $\pm 0.05\%$ B: $\pm 0.1\%$ C: $\pm 0.25\%$ D: $\pm 0.5\%$ F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$ P: $\pm 5-15\%$ ————— Rated value, ohms: K:1,000, M:1,000,000</p> <p>Material : CARBONCarbon MT - FILM.....Metal Film OXIDE - MTOxide Metal Film SOLIDComposition MT - GLAZEMetal Glaze WIRE WOUNDWire Wound CERAMIC RES.....Ceramic FUSIBLE RESFusible</p>			<p>610 229 4262 POWER ASSY-E4ZA UA1346</p> <p>TRANSISTER Q601 406 000 6804 TR 2SA1015-GR(SAN) 405 001 7407 TR 2SA1015-O(SAN) 405 001 7605 TR 2SA1015-Y(SAN) 405 004 3109 TR 2SA564A-Q(CU) 405 004 3208 TR 2SA564A-R(CU) 405 004 4205 TR 2SA608-E-CTV-NP 405 004 4809 TR 2SA608-F-CTV-NP 405 006 1103 TR 2SA933-Q 405 006 1202 TR 2SA933-R Q602 405 016 9700 TR 2SC3070-CTV Q603 405 093 2304 TR 2SC3752-L-YB 405 093 2403 TR 2SC3752-M-YB Q604 405 059 9804 TR 2SD1913-Q-RA 405 059 9903 TR 2SD1913-R-RA Q606 405 064 7307 TR 2SB1274-Q-RA 405 064 7406 TR 2SB1274-R-RA Q607 405 011 7305 TR 2SC1740-Q 405 011 7404 TR 2SC1740-R 405 011 7503 TR 2SC1740-S 405 012 2002 TR 2SC1815-GR 405 012 2309 TR 2SC1815-Y 405 019 2708 TR 2SC536-F-NP 405 019 3804 TR 2SC536-G-NP 405 020 7501 TR 2SC945A-PA 405 020 7709 TR 2SC945A-QA</p> <p>INTEGRATED CIRCUIT IC601 409 170 5301 IC SI-3050C IC602 409 180 2307 IC UPC1093J</p> <p>CAPACITOR ΔC601 404 007 9606 MT-COMPO 0.22U M 250V ΔC602 404 007 9903 MT-COMPO 0.1U M 250V ΔC603 404 008 2705 CERAMIC 470P K 400V 404 008 3108 CERAMIC 470P M 400V ΔC604 404 008 2705 CERAMIC 470P K 400V 404 008 3108 CERAMIC 470P M 400V C606 403 076 9203 CERAMIC 2200P M 1K C607 403 076 9203 CERAMIC 2200P M 1K C608 403 076 9203 CERAMIC 2200P M 1K C609 403 076 9203 CERAMIC 2200P M 1K C610 403 076 9203 CERAMIC 2200P M 1K C611 403 076 9203 CERAMIC 2200P M 1K C612 404 050 9608 ELECT 82U M 400V C613 403 165 7004 CERAMIC 470P K 3K C614 403 058 9108 POLYESTER 0.018U J 50V 403 058 9702 POLYESTER 0.018U J 50V C616 403 056 9506 POLYESTER 0.01U J 50V 403 057 0205 POLYESTER 0.01U J 50V C617 404 008 2705 CERAMIC 470P K 400V</p>		

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
	404 008 3108	CERAMIC 470P M 400V	D611	407 048 6900	ZENER DIODE EQA02-12A
C621	403 045 1504	ELECT 1000U M 25V	D612	407 005 4505	DIODE DS442X
C622	403 042 2405	ELECT 100U M 16V		407 013 1206	DIODE 1S1555
C623	403 042 4805	ELECT 1000U M 16V		407 013 4207	DIODE 1S2076
C624	403 042 4805	ELECT 1000U M 16V		407 013 7109	DIODE 1S2473
C626	403 053 3606	ELECT 2200U M 35V	D613	407 103 1604	DIODE RU4YX LF-J3
C627	403 053 6904	ELECT 330U M 35V	D614	407 007 7306	DIODE EU01Z
C628	403 045 9807	ELECT 2200U M 25V	D616	407 103 1604	DIODE RU4YX LF-J3
C629	403 043 2008	ELECT 2200U M 16V	D617	407 103 1604	DIODE RU4YX LF-J3
C631	403 067 5603	MT-COMPO 0.1U J 50V	D619	407 005 8602	DIODE ERA15-02
C632	403 134 9305	ELECT 2200U M 16V			
C634	403 067 5603	MT-COMPO 0.1U J 50V			
C636	403 039 9004	ELECT 1000U M 10V			
RESISTER			MISCELLANEUS		
RTH601	408 014 1608	THERMISTOR ERT-D5FFL5R0P	F601	423 012 2402	FUSE 250V 2.5A
R601	401 008 8607	CARBON 220K JA 1/2W	A601A	610 229 4279	POWER ASSY-E4ZA-A
△R602	402 000 8305	SOLID 5.6M KA 1/2W	A601B	610 229 4286	POWER ASSY-E4ZA-B
△R603	402 000 8305	SOLID 5.6M KA 1/2W	△PC601	408 014 9703	PC CNY17F-30PT1+6
R604	401 080 2005	WIRE WOUND 3.3 KB 2W	△RL601	610 009 5540	RELAY
R607	401 007 2903	CARBON 1M JA 1/2W			
R608	401 007 2903	CARBON 1M JA 1/2W			
R609	401 065 2709	OXIDE-MT 120 JA 2W			
R610	401 060 7402	OXIDE-MT 270 JA 1W			
R611	401 024 7400	CARBON 10K JA 1/6W			
R612	401 025 8208	CARBON 22K JA 1/6W			
R613	401 026 0607	CARBON 270 JA 1/6W			
R614	401 026 1000	CARBON 2.7K JA 1/6W			
R616	401 024 7400	CARBON 10K JA 1/6W			
R617	401 024 7004	CARBON 1K JA 1/6W			
R619	401 006 7701	CARBON 1 JB 1/2W			
R621	401 021 2002	CARBON 560 JB 1/4W			
R623	401 026 1000	CARBON 2.7K JA 1/6W			
R624	401 026 9907	CARBON 4.7K JA 1/6W			
R626	401 026 9907	CARBON 4.7K JA 1/6W			
R627	401 026 9907	CARBON 4.7K JA 1/6W			
R628	401 024 7400	CARBON 10K JA 1/6W			
R629	401 024 7400	CARBON 10K JA 1/6W			
R630	401 025 7805	CARBON 2.2K JA 1/6W			
R631	401 024 7004	CARBON 1K JA 1/6W			
R632	401 026 0607	CARBON 270 JA 1/6W			
VARIABLE RESISTER					
VR601	610 019 4021	VR B-1K			
TRANSFORMER					
△T601	610 229 4040	CONVERTER TRANS			
COIL					
L601	610 212 6013	LINE FILTER			
L602	610 229 8932	LINE FILTER			
L603	610 031 5952	LINE FILTER			
L604	610 031 6188	LINE FILTER			
L611	610 031 1336	INDUCTOR 120UHK			
L612	610 211 3488	INDUCTOR			
DIODE					
D603	407 141 1000	DIODE RBV-408			
D605	407 003 5504	DIODE DBA10C			
D606	407 013 1008	DIODE 1S1553			
	407 013 4306	DIODE 1S2076A			
	407 013 6508	DIODE 1S2471			
D607	407 007 6606	DIODE ES1			
D608	407 013 1008	DIODE 1S1553			
	407 013 4306	DIODE 1S2076A			
	407 013 6508	DIODE 1S2471			
D610	407 005 4505	DIODE DS442X			
	407 013 1206	DIODE 1S1555			
	407 013 4207	DIODE 1S2076			
	407 013 7109	DIODE 1S2473			

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q0C5	405 004 3109	TR 2SA564A-Q(CU)	Q021	405 020 7907	TR 2SC945A-RA
	405 004 3208	TR 2SA564A-R(CU)		405 011 7305	TR 2SC1740-Q
	405 004 4205	TR 2SA608-E-CTV-NP		405 011 7404	TR 2SC1740-R
	405 004 4809	TR 2SA608-F-CTV-NP		405 011 7503	TR 2SC1740-S
	405 006 1103	TR 2SA933-Q		405 011 8401	TR 2SC1740S-Q
	405 006 1202	TR 2SA933-R		405 011 8500	TR 2SC1740S-R
	405 006 1707	TR 2SA933S-Q		405 011 8609	TR 2SC1740S-S
	405 006 1806	TR 2SA933S-R		405 012 2002	TR 2SC1815-GR
	405 011 7305	TR 2SC1740-Q		405 012 2101	TR 2SC1815-O
	405 011 7404	TR 2SC1740-R		405 012 2309	TR 2SC1815-Y
Q0G1	405 011 7503	TR 2SC1740-S	Q022	405 019 1909	TR 2SC536-E-NP
	405 011 8401	TR 2SC1740S-Q		405 019 2708	TR 2SC536-F-NP
	405 011 8500	TR 2SC1740S-R		405 019 3804	TR 2SC536-G-NP
	405 011 8609	TR 2SC1740S-S		405 020 7501	TR 2SC945A-PA
	405 012 2002	TR 2SC1815-GR		405 020 7709	TR 2SC945A-QA
	405 012 2101	TR 2SC1815-O		405 020 7907	TR 2SC945A-RA
	405 012 2309	TR 2SC1815-Y		405 011 7305	TR 2SC1740-Q
	405 019 1909	TR 2SC536-E-NP		405 011 7404	TR 2SC1740-R
	405 019 2708	TR 2SC536-F-NP		405 011 7503	TR 2SC1740-S
	405 019 3804	TR 2SC536-G-NP		405 011 8401	TR 2SC1740S-Q
Q0G2	405 020 7501	TR 2SC945A-PA	Q023	405 011 8500	TR 2SC1740S-R
	405 020 7709	TR 2SC945A-QA		405 011 8609	TR 2SC1740S-S
	405 020 7907	TR 2SC945A-RA		405 012 2002	TR 2SC1815-GR
	405 011 7305	TR 2SC1740-Q		405 012 2101	TR 2SC1815-O
	405 011 7404	TR 2SC1740-R		405 012 2309	TR 2SC1815-Y
	405 011 7503	TR 2SC1740-S		405 019 1909	TR 2SC536-E-NP
	405 011 8401	TR 2SC1740S-Q		405 019 2708	TR 2SC536-F-NP
	405 011 8500	TR 2SC1740S-R		405 019 3804	TR 2SC536-G-NP
	405 011 8609	TR 2SC1740S-S		405 020 7501	TR 2SC945A-PA
	405 012 2002	TR 2SC1815-GR		405 020 7709	TR 2SC945A-QA
Q0G3	405 012 2101	TR 2SC1815-O	Q041	405 020 7907	TR 2SC945A-RA
	405 012 2309	TR 2SC1815-Y		405 018 2808	TR 2SC3402
	405 019 1909	TR 2SC536-E-NP		405 011 7305	TR 2SC1740-Q
	405 019 2708	TR 2SC536-F-NP		405 011 7404	TR 2SC1740-R
	405 019 3804	TR 2SC536-G-NP		405 011 7503	TR 2SC1740-S
	405 020 7501	TR 2SC945A-PA		405 011 8401	TR 2SC1740S-Q
	405 020 7709	TR 2SC945A-QA		405 011 8500	TR 2SC1740S-R
	405 020 7907	TR 2SC945A-RA		405 011 8609	TR 2SC1740S-S
	405 011 7305	TR 2SC1740-Q		405 012 2002	TR 2SC1815-GR
	405 011 7404	TR 2SC1740-R		405 012 2101	TR 2SC1815-O
Q0G4	405 011 7503	TR 2SC1740-S	Q042	405 012 2309	TR 2SC1815-Y
	405 011 8401	TR 2SC1740S-Q		405 019 1909	TR 2SC536-E-NP
	405 011 8500	TR 2SC1740S-R		405 019 2708	TR 2SC536-F-NP
	405 011 8609	TR 2SC1740S-S		405 019 3804	TR 2SC536-G-NP
	405 012 2002	TR 2SC1815-GR		405 020 7501	TR 2SC945A-PA
	405 012 2101	TR 2SC1815-O		405 020 7709	TR 2SC945A-QA
	405 012 2309	TR 2SC1815-Y		405 020 7907	TR 2SC945A-RA
	405 019 1909	TR 2SC536-E-NP		405 011 7305	TR 2SC1740-Q
	405 019 2708	TR 2SC536-F-NP		405 011 7404	TR 2SC1740-R
	405 019 3804	TR 2SC536-G-NP		405 011 7503	TR 2SC1740-S
Q0P1	405 020 7501	TR 2SC945A-PA	Q061	405 011 8401	TR 2SC1740S-Q
	405 020 7709	TR 2SC945A-QA		405 011 8500	TR 2SC1740S-R
	405 020 7907	TR 2SC945A-RA		405 011 8609	TR 2SC1740S-S
	405 016 2206	TR 2SC2878-A		405 012 2002	TR 2SC1815-GR
	405 016 2305	TR 2SC2878-B		405 012 2101	TR 2SC1815-O
	405 016 2206	TR 2SC2878-A		405 012 2309	TR 2SC1815-Y
	405 016 2305	TR 2SC2878-B		405 019 1909	TR 2SC536-E-NP
	405 011 7305	TR 2SC1740-Q		405 019 2708	TR 2SC536-F-NP
	405 011 7404	TR 2SC1740-R		405 019 3804	TR 2SC536-G-NP
	405 011 7503	TR 2SC1740-S		405 020 7501	TR 2SC945A-PA
Q0P1	405 011 8401	TR 2SC1740S-Q	Q062	405 020 7709	TR 2SC945A-QA
	405 011 8500	TR 2SC1740S-R		405 020 7907	TR 2SC945A-RA
	405 011 8609	TR 2SC1740S-S		405 018 2501	TR 2SC3399
	405 012 2002	TR 2SC1815-GR		405 018 2501	TR 2SC3399
	405 012 2101	TR 2SC1815-O		405 011 7305	TR 2SC1740-Q
	405 012 2309	TR 2SC1815-Y		405 011 7404	TR 2SC1740-R
	405 019 1909	TR 2SC536-E-NP		405 011 7503	TR 2SC1740-S
	405 019 2708	TR 2SC536-F-NP		405 011 8401	TR 2SC1740S-Q
	405 019 3804	TR 2SC536-G-NP		405 011 8500	TR 2SC1740S-R
	405 020 7501	TR 2SC945A-PA		405 011 8609	TR 2SC1740S-S

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q069	405 012 2002	TR 2SC1815-GR	Q1A1	405 019 2708	TR 2SC536-F-NP
	405 012 2101	TR 2SC1815-O		405 019 3804	TR 2SC536-G-NP
	405 012 2309	TR 2SC1815-Y		405 020 7501	TR 2SC945A-PA
	405 019 1909	TR 2SC536-E-NP		405 020 7709	TR 2SC945A-QA
	405 019 2708	TR 2SC536-F-NP		405 020 7907	TR 2SC945A-RA
	405 019 3804	TR 2SC536-G-NP		405 011 7305	TR 2SC1740-Q
	405 020 7501	TR 2SC945A-PA		405 011 7404	TR 2SC1740-R
	405 020 7709	TR 2SC945A-QA		405 011 7503	TR 2SC1740-S
	405 020 7907	TR 2SC945A-RA		405 011 8401	TR 2SC1740S-Q
	405 011 7305	TR 2SC1740-Q		405 011 8500	TR 2SC1740S-R
	405 011 7404	TR 2SC1740-R		405 011 8609	TR 2SC1740S-S
	405 011 7503	TR 2SC1740-S		405 012 2002	TR 2SC1815-GR
	405 011 8401	TR 2SC1740S-Q		405 012 2101	TR 2SC1815-O
	405 011 8500	TR 2SC1740S-R		405 012 2309	TR 2SC1815-Y
	405 011 8609	TR 2SC1740S-S		405 019 1909	TR 2SC536-E-NP
	405 012 2002	TR 2SC1815-GR		405 019 2708	TR 2SC536-F-NP
	405 012 2101	TR 2SC1815-O		405 019 3804	TR 2SC536-G-NP
	405 012 2309	TR 2SC1815-Y		405 020 7501	TR 2SC945A-PA
	405 019 1909	TR 2SC536-E-NP		405 020 7709	TR 2SC945A-QA
	405 019 2708	TR 2SC536-F-NP		405 020 7907	TR 2SC945A-RA
Q081	405 019 3804	TR 2SC536-G-NP	Q1F1	405 011 7305	TR 2SC1740-Q
	405 020 7501	TR 2SC945A-PA		405 011 7404	TR 2SC1740-R
	405 020 7709	TR 2SC945A-QA		405 011 7503	TR 2SC1740-S
	405 020 7907	TR 2SC945A-RA		405 011 8401	TR 2SC1740S-Q
	405 011 7305	TR 2SC1740-Q		405 011 8500	TR 2SC1740S-R
	405 011 7404	TR 2SC1740-R		405 011 8609	TR 2SC1740S-S
	405 011 7503	TR 2SC1740-S		405 012 2002	TR 2SC1815-GR
	405 012 2002	TR 2SC1815-GR		405 012 2101	TR 2SC1815-O
	405 012 2101	TR 2SC1815-O		405 012 2309	TR 2SC1815-Y
	405 012 2309	TR 2SC1815-Y		405 019 1909	TR 2SC536-E-NP
	405 019 1909	TR 2SC536-E-NP		405 019 2708	TR 2SC536-F-NP
	405 019 2708	TR 2SC536-F-NP		405 019 3804	TR 2SC536-G-NP
	405 019 3804	TR 2SC536-G-NP		405 020 7501	TR 2SC945A-PA
	405 020 7501	TR 2SC945A-PA		405 020 7709	TR 2SC945A-QA
	405 020 7709	TR 2SC945A-QA		405 020 7907	TR 2SC945A-RA
	405 020 7907	TR 2SC945A-RA	Q1F2	405 018 2501	TR 2SC3399
	405 011 7305	TR 2SC1740-Q		405 011 7305	TR 2SC1740-Q
Q082	405 011 7404	TR 2SC1740-R	Q1F3	405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S		405 011 7503	TR 2SC1740-S
	405 012 2002	TR 2SC1815-GR	Q1F4	405 011 8401	TR 2SC1740S-Q
	405 012 2101	TR 2SC1815-O		405 011 8500	TR 2SC1740S-R
	405 012 2309	TR 2SC1815-Y		405 011 8609	TR 2SC1740S-S
	405 019 1909	TR 2SC536-E-NP		405 012 2002	TR 2SC1815-GR
	405 019 2708	TR 2SC536-F-NP		405 012 2101	TR 2SC1815-O
	405 019 3804	TR 2SC536-G-NP		405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA		405 019 1909	TR 2SC536-E-NP
	405 020 7709	TR 2SC945A-QA		405 019 2708	TR 2SC536-F-NP
	405 020 7907	TR 2SC945A-RA		405 019 3804	TR 2SC536-G-NP
	405 011 7305	TR 2SC1740-Q		405 020 7501	TR 2SC945A-PA
	405 011 7404	TR 2SC1740-R		405 020 7709	TR 2SC945A-QA
	405 011 7503	TR 2SC1740-S		405 020 7907	TR 2SC945A-RA
	405 012 2002	TR 2SC1815-GR		405 011 7305	TR 2SC1740-Q
	405 012 2101	TR 2SC1815-O		405 011 7404	TR 2SC1740-R
	405 012 2309	TR 2SC1815-Y		405 011 7503	TR 2SC1740-S
	405 019 1909	TR 2SC536-E-NP		405 011 8401	TR 2SC1740S-Q
	405 019 2708	TR 2SC536-F-NP		405 011 8500	TR 2SC1740S-R
	405 019 3804	TR 2SC536-G-NP		405 011 8609	TR 2SC1740S-S
	405 020 7501	TR 2SC945A-PA	Q1F5	405 012 2002	TR 2SC1815-GR
Q083	405 020 7709	TR 2SC945A-QA		405 012 2101	TR 2SC1815-O
	405 020 7907	TR 2SC945A-RA		405 012 2309	TR 2SC1815-Y
	405 011 7305	TR 2SC1740-Q		405 019 1909	TR 2SC536-E-NP
	405 011 7404	TR 2SC1740-R		405 019 2708	TR 2SC536-F-NP
	405 011 7503	TR 2SC1740-S		405 019 3804	TR 2SC536-G-NP
	405 012 2002	TR 2SC1815-GR		405 020 7501	TR 2SC945A-PA
	405 012 2101	TR 2SC1815-O		405 020 7709	TR 2SC945A-QA
	405 012 2309	TR 2SC1815-Y		405 020 7907	TR 2SC945A-RA
	405 019 1909	TR 2SC536-E-NP		406 000 6804	TR 2SA1015-GR(SAN)
	405 019 2708	TR 2SC536-F-NP		405 001 7407	TR 2SA1015-O(SAN)
	405 019 3804	TR 2SC536-G-NP		405 001 7605	TR 2SA1015-Y(SAN)
	405 020 7501	TR 2SC945A-PA		405 004 3109	TR 2SA564A-Q(CU)
	405 020 7709	TR 2SC945A-QA			
	405 020 7907	TR 2SC945A-RA			
	405 011 7305	TR 2SC1740-Q			
	405 011 7404	TR 2SC1740-R			
	405 011 7503	TR 2SC1740-S			
	405 011 8401	TR 2SC1740S-Q			
	405 011 8500	TR 2SC1740S-R			
	405 011 8609	TR 2SC1740S-S			
Q084	405 012 2002	TR 2SC1815-GR			
	405 012 2101	TR 2SC1815-O			
	405 012 2309	TR 2SC1815-Y			
	405 019 1909	TR 2SC536-E-NP			

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q131	405 004 3208	TR 2SA564A-R(CU)	Q173	405 012 2002	TR 2SC1815-GR
	405 004 4205	TR 2SA608-E-CTV-NP		405 012 2101	TR 2SC1815-O
	405 004 4809	TR 2SA608-F-CTV-NP		405 012 2309	TR 2SC1815-Y
	405 006 1103	TR 2SA933-Q		405 019 1909	TR 2SC536-E-NP
	405 006 1202	TR 2SA933-R		405 019 2708	TR 2SC536-F-NP
	405 006 1707	TR 2SA933S-Q		405 019 3804	TR 2SC536-G-NP
	405 006 1806	TR 2SA933S-R		405 020 7501	TR 2SC945A-PA
	405 018 2501	TR 2SC3399		405 020 7709	TR 2SC945A-QA
	405 018 2501	TR 2SC3399		405 020 7907	TR 2SC945A-RA
	406 000 6804	TR 2SA1015-GR(SAN)	Q174	405 011 7305	TR 2SC1740-Q
Q132	405 001 7407	TR 2SA1015-O(SAN)		405 011 7404	TR 2SC1740-R
	405 001 7605	TR 2SA1015-Y(SAN)		405 011 7503	TR 2SC1740-S
	405 004 3109	TR 2SA564A-Q(CU)		405 011 8401	TR 2SC1740S-Q
	405 004 3208	TR 2SA564A-R(CU)		405 011 8500	TR 2SC1740S-R
	405 004 4205	TR 2SA608-E-CTV-NP		405 011 8609	TR 2SC1740S-S
	405 004 4809	TR 2SA608-F-CTV-NP		405 012 2002	TR 2SC1815-GR
	405 006 1103	TR 2SA933-Q		405 012 2101	TR 2SC1815-O
	405 006 1202	TR 2SA933-R		405 012 2309	TR 2SC1815-Y
	405 006 1707	TR 2SA933S-Q		405 019 1909	TR 2SC536-E-NP
	405 006 1806	TR 2SA933S-R		405 019 2708	TR 2SC536-F-NP
Q151	405 011 7305	TR 2SC1740-Q		405 019 3804	TR 2SC536-G-NP
	405 011 7404	TR 2SC1740-R	Q175	405 020 7501	TR 2SC945A-PA
	405 011 7503	TR 2SC1740-S		405 020 7709	TR 2SC945A-QA
	405 011 8401	TR 2SC1740S-Q		405 020 7907	TR 2SC945A-RA
	405 011 8500	TR 2SC1740S-R		405 011 7305	TR 2SC1740-Q
	405 011 8609	TR 2SC1740S-S		405 011 7404	TR 2SC1740-R
	405 012 2002	TR 2SC1815-GR		405 011 7503	TR 2SC1740-S
	405 012 2101	TR 2SC1815-O		405 011 8401	TR 2SC1740S-Q
	405 012 2309	TR 2SC1815-Y		405 011 8500	TR 2SC1740S-R
	405 019 1909	TR 2SC536-E-NP		405 011 8609	TR 2SC1740S-S
	405 019 2708	TR 2SC536-F-NP	Q176	405 012 2002	TR 2SC1815-GR
Q152	405 019 3804	TR 2SC536-G-NP		405 012 2101	TR 2SC1815-O
	405 020 7501	TR 2SC945A-PA		405 012 2309	TR 2SC1815-Y
	405 020 7709	TR 2SC945A-QA		405 019 1909	TR 2SC536-E-NP
	405 020 7907	TR 2SC945A-RA		405 019 2708	TR 2SC536-F-NP
	405 011 7404	TR 2SC1740-R		405 019 3804	TR 2SC536-G-NP
	405 011 7503	TR 2SC1740-S		405 020 7501	TR 2SC945A-PA
	405 011 8401	TR 2SC1740S-Q		405 020 7709	TR 2SC945A-QA
	405 011 8500	TR 2SC1740S-R		405 020 7907	TR 2SC945A-RA
	405 011 8609	TR 2SC1740S-S		405 011 7305	TR 2SC1740-Q
	405 012 2002	TR 2SC1815-GR		405 011 7404	TR 2SC1740-R
Q171	405 012 2101	TR 2SC1815-O	Q177	405 011 7503	TR 2SC1740-S
	405 012 2309	TR 2SC1815-Y		405 011 8401	TR 2SC1740S-Q
	405 019 1909	TR 2SC536-E-NP		405 011 8500	TR 2SC1740S-R
	405 019 2708	TR 2SC536-F-NP		405 011 8609	TR 2SC1740S-S
	405 019 3804	TR 2SC536-G-NP		405 012 2002	TR 2SC1815-GR
	405 020 7501	TR 2SC945A-PA		405 012 2101	TR 2SC1815-O
	405 020 7709	TR 2SC945A-QA		405 012 2309	TR 2SC1815-Y
	405 020 7907	TR 2SC945A-RA		405 019 1909	TR 2SC536-E-NP
	405 011 7305	TR 2SC1740-Q		405 019 2708	TR 2SC536-F-NP
	405 011 7404	TR 2SC1740-R		405 019 3804	TR 2SC536-G-NP
Q172	405 011 7503	TR 2SC1740-S	Q177	405 020 7501	TR 2SC945A-PA
	405 011 8401	TR 2SC1740S-Q		405 020 7709	TR 2SC945A-QA
	405 011 8500	TR 2SC1740S-R		405 020 7907	TR 2SC945A-RA
	405 011 8609	TR 2SC1740S-S		405 011 7305	TR 2SC1740-Q
	405 012 2002	TR 2SC1815-GR		405 011 7404	TR 2SC1740-R
	405 012 2101	TR 2SC1815-O		405 011 7503	TR 2SC1740-S
	405 012 2309	TR 2SC1815-Y		405 011 8401	TR 2SC1740S-Q
	405 019 1909	TR 2SC536-E-NP		405 011 8500	TR 2SC1740S-R
	405 019 2708	TR 2SC536-F-NP		405 011 8609	TR 2SC1740S-S
	405 019 3804	TR 2SC536-G-NP		405 012 2002	TR 2SC1815-GR

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q179	405 011 7404	TR 2SC1740-R	Q801	405 011 8500	TR 2SC1740S-R
	405 011 7503	TR 2SC1740-S		405 011 8609	TR 2SC1740S-S
	405 011 8401	TR 2SC1740S-Q		405 012 2002	TR 2SC1815-GR
	405 011 8500	TR 2SC1740S-R		405 012 2101	TR 2SC1815-O
	405 011 8609	TR 2SC1740S-S		405 012 2309	TR 2SC1815-Y
	405 012 2002	TR 2SC1815-GR		405 019 1909	TR 2SC536-E-NP
	405 012 2101	TR 2SC1815-O		405 019 2708	TR 2SC536-F-NP
	405 012 2309	TR 2SC1815-Y		405 019 3804	TR 2SC536-G-NP
	405 019 1909	TR 2SC536-E-NP		405 020 7501	TR 2SC945A-PA
	405 019 2708	TR 2SC536-F-NP		405 020 7709	TR 2SC945A-QA
	405 019 3804	TR 2SC536-G-NP		405 020 7907	TR 2SC945A-RA
	405 020 7501	TR 2SC945A-PA		405 018 2808	TR 2SC3402
	405 020 7709	TR 2SC945A-QA		405 018 2808	TR 2SC3402
	405 020 7907	TR 2SC945A-RA		405 018 2808	TR 2SC3402
	406 000 6804	TR 2SA1015-GR(SAN)		405 018 2808	TR 2SC3402
	405 001 7407	TR 2SA1015-O(SAN)		405 018 2808	TR 2SC3402
	405 001 7605	TR 2SA1015-Y(SAN)		405 018 2808	TR 2SC3402
	405 004 3109	TR 2SA564A-Q(CU)		405 018 2808	TR 2SC3402
	405 004 3208	TR 2SA564A-R(CU)		405 023 4903	TR 2SD400-D-MP
	405 004 4205	TR 2SA608-E-CTV-NP		405 023 5009	TR 2SD400-E-MP
	405 004 4809	TR 2SA608-F-CTV-NP		405 023 5306	TR 2SD400-F-MP
	405 006 1103	TR 2SA933-Q		405 011 7305	TR 2SC1740-Q
	405 006 1202	TR 2SA933-R		405 011 7404	TR 2SC1740-R
	405 006 1707	TR 2SA933S-Q		405 011 7503	TR 2SC1740-S
	405 006 1806	TR 2SA933S-R		405 011 8401	TR 2SC1740S-Q
Q181	406 000 6804	TR 2SA1015-GR(SAN)		405 011 8500	TR 2SC1740S-R
	405 001 7407	TR 2SA1015-O(SAN)		405 011 8609	TR 2SC1740S-S
	405 001 7605	TR 2SA1015-Y(SAN)		405 012 2002	TR 2SC1815-GR
	405 004 3109	TR 2SA564A-Q(CU)		405 012 2101	TR 2SC1815-O
	405 004 3208	TR 2SA564A-R(CU)		405 012 2309	TR 2SC1815-Y
	405 004 4205	TR 2SA608-E-CTV-NP		405 019 1909	TR 2SC536-E-NP
	405 004 4809	TR 2SA608-F-CTV-NP		405 019 2708	TR 2SC536-F-NP
	405 006 1103	TR 2SA933-Q		405 019 3804	TR 2SC536-G-NP
	405 006 1202	TR 2SA933-R		405 020 7501	TR 2SC945A-PA
	405 006 1707	TR 2SA933S-Q		405 020 7709	TR 2SC945A-QA
	405 006 1806	TR 2SA933S-R		405 020 7907	TR 2SC945A-RA
	405 011 7305	TR 2SC1740-Q		405 018 2808	TR 2SC3402
	405 011 7404	TR 2SC1740-R		405 018 2501	TR 2SC3399
	405 011 7503	TR 2SC1740-S		405 011 7305	TR 2SC1740-Q
	405 011 8401	TR 2SC1740S-Q		405 011 7404	TR 2SC1740-R
	405 011 8500	TR 2SC1740S-R		405 011 7503	TR 2SC1740-S
	405 011 8609	TR 2SC1740S-S		405 011 8401	TR 2SC1740S-Q
	405 012 2002	TR 2SC1815-GR		405 011 8500	TR 2SC1740S-R
	405 012 2101	TR 2SC1815-O		405 011 8609	TR 2SC1740S-S
	405 012 2309	TR 2SC1815-Y		405 012 2002	TR 2SC1815-GR
	405 019 1909	TR 2SC536-E-NP		405 012 2101	TR 2SC1815-O
	405 019 2708	TR 2SC536-F-NP		405 012 2309	TR 2SC1815-Y
	405 019 3804	TR 2SC536-G-NP		405 019 1909	TR 2SC536-E-NP
Q183	405 019 2708	TR 2SC536-F-NP		405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP		405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA		405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA		405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA		405 020 7907	TR 2SC945A-RA
	405 011 7305	TR 2SC1740-Q		405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R		405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S		405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q		405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R		405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S		405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR		405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O		405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y		405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP		405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP		405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP		405 019 3804	TR 2SC536-G-NP
	405 020 7501	TR 2SC945A-PA		405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA		405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA		405 020 7907	TR 2SC945A-RA
Q184	405 011 7305	TR 2SC1740-Q		405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R		405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S		405 011 7503	TR 2SC1740-S
	405 011 8401	TR 2SC1740S-Q		405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R		405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S		405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR		405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O		405 012 2101	TR 2SC1815-O

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q847 Q848 Q861 Q871	405 011 8401	TR 2SC1740S-Q	C0C1	403 069 8305	CERAMIC 0.01U Z 50V
	405 011 8500	TR 2SC1740S-R	C0G1	403 041 8804	ELECT 10U M 16V
	405 011 8609	TR 2SC1740S-S	C0G2	403 041 8804	ELECT 10U M 16V
	405 012 2002	TR 2SC1815-GR	C0G5	403 042 2405	ELECT 100U M 16V
	405 012 2101	TR 2SC1815-O	COM1	403 044 1703	ELECT 470U M 16V
	405 019 1909	TR 2SC536-E-NP	C001	403 041 8804	ELECT 10U M 16V
	405 019 2708	TR 2SC536-F-NP	C002	403 041 8804	ELECT 10U M 16V
	405 019 3804	TR 2SC536-G-NP	C003	403 041 8804	ELECT 10U M 16V
	405 020 7501	TR 2SC945A-PA	C004	403 041 8804	ELECT 10U M 16V
	405 020 7709	TR 2SC945A-QA	C005	403 041 8804	ELECT 10U M 16V
	405 020 7907	TR 2SC945A-RA	C006	403 041 8804	ELECT 10U M 16V
	405 018 2808	TR 2SC3402	C007	403 043 9106	ELECT 47U M 16V
	405 018 2808	TR 2SC3402	C008	403 043 9106	ELECT 47U M 16V
	405 018 2501	TR 2SC3399	C009	403 043 9106	ELECT 47U M 16V
	405 011 7305	TR 2SC1740-Q	C010	403 043 9106	ELECT 47U M 16V
	405 011 7404	TR 2SC1740-R	C015	403 041 8804	ELECT 10U M 16V
	405 011 7503	TR 2SC1740-S	C016	403 041 8804	ELECT 10U M 16V
	405 011 8401	TR 2SC1740S-Q	C019	403 085 6804	NP-ELECT 47U M 16V
	405 011 8500	TR 2SC1740S-R	C021	403 042 2405	ELECT 100U M 16V
	405 011 8609	TR 2SC1740S-S	C024	403 069 8305	CERAMIC 0.01U Z 50V
	405 012 2002	TR 2SC1815-GR	C025	403 069 8305	CERAMIC 0.01U Z 50V
	405 012 2101	TR 2SC1815-O	C026	403 042 2405	ELECT 100U M 16V
	405 012 2309	TR 2SC1815-Y	C031	403 026 1103	CERAMIC 47P J 50V
	405 019 1909	TR 2SC536-E-NP	C032	403 022 6300	CERAMIC 33P J 50V
	405 019 2708	TR 2SC536-F-NP	C036	403 068 9006	CERAMIC 100P K 50V
	405 019 3804	TR 2SC536-G-NP	C037	403 071 5606	CERAMIC 220P K 50V
	405 020 7501	TR 2SC945A-PA	C040	403 069 8305	CERAMIC 0.01U Z 50V
	405 020 7709	TR 2SC945A-QA	C041	403 033 3602	CERAMIC 82P J 50V
	405 020 7907	TR 2SC945A-RA	C042	403 009 3407	CERAMIC 100P J 50V
Q872	405 011 7305	TR 2SC1740-Q	C043	403 043 9106	ELECT 47U M 16V
	405 011 7404	TR 2SC1740-R	C044	403 069 8305	CERAMIC 0.01U Z 50V
	405 011 7503	TR 2SC1740-S	C045	403 085 6804	NP-ELECT 47U M 16V
	405 011 8401	TR 2SC1740S-Q	C046	403 042 2405	ELECT 100U M 16V
	405 011 8500	TR 2SC1740S-R	C047	403 069 8305	CERAMIC 0.01U Z 50V
	405 011 8609	TR 2SC1740S-S	C048	403 009 3407	CERAMIC 100P J 50V
	405 012 2002	TR 2SC1815-GR	C049	403 020 5008	CERAMIC 270P J 50V
	405 012 2101	TR 2SC1815-O	C051	403 043 9106	ELECT 47U M 16V
	405 012 2309	TR 2SC1815-Y	C052	403 043 9106	ELECT 47U M 16V
	405 019 1909	TR 2SC536-E-NP	C053	403 028 2009	CERAMIC 56P J 50V
	405 019 2708	TR 2SC536-F-NP	C054	403 014 8008	CERAMIC 180P J 50V
	405 019 3804	TR 2SC536-G-NP	C055	403 069 8305	CERAMIC 0.01U Z 50V
	405 020 7501	TR 2SC945A-PA	C056	403 069 8305	CERAMIC 0.01U Z 50V
	405 020 7709	TR 2SC945A-QA	C057	403 026 1103	CERAMIC 47P J 50V
	405 020 7907	TR 2SC945A-RA	C058	403 013 1901	CERAMIC 150P J 50V
			C059	403 069 8305	CERAMIC 0.01U Z 50V
			C060	403 043 6006	ELECT 330U M 16V
			C062	403 043 9106	ELECT 47U M 16V
			C063	403 085 6804	NP-ELECT 47U M 16V
			C064	403 043 9106	ELECT 47U M 16V
			C065	403 069 8305	CERAMIC 0.01U Z 50V
			C066	403 043 9106	ELECT 47U M 16V
			C067	403 042 2405	ELECT 100U M 16V
			C068	403 069 8305	CERAMIC 0.01U Z 50V
			C069	403 042 2405	ELECT 100U M 16V
			C081	403 085 4008	NP-ELECT 10U M 16V
			C082	403 085 4008	NP-ELECT 10U M 16V
			C083	403 062 5103	POLYESTER 5600P K 50V
				403 062 5707	POLYESTER 5600P K 50V
			C084	403 086 2607	NP-ELECT 1U M 50V
			C085	403 042 2405	ELECT 100U M 16V
			C086	403 049 0008	ELECT 1U M 50V
			C087	403 049 0008	ELECT 1U M 50V
			C088	403 049 4204	ELECT 10U M 50V
			C089	403 049 4204	ELECT 10U M 50V
			C090	403 062 0306	POLYESTER 0.047U K 50V
				403 062 1006	POLYESTER 0.047U K 50V
			C091	403 047 5005	ELECT 470U M 25V
			C092	403 045 1504	ELECT 1000U M 25V
			C1A1	403 059 5901	POLYESTER 0.022U K 50V
				403 059 6700	POLYESTER 0.022U K 50V
INTEGRATED CIRCUIT					
IC001	409 119 3702	IC LA7955			
IC002	410 067 3201	IC TEA2014A			
IC041	409 146 7209	IC LA7222			
IC051	409 132 7909	IC MC14053BCP			
	409 051 3006	IC TC4053BP			
	409 059 2407	IC UPD4053BC			
IC052	409 221 1306	IC HCF0222			
IC061	409 146 7209	IC LA7222			
IC091	409 073 1509	IC AN5265			
IC1A1	409 195 4501	IC TDA2579A/N8			
	410 036 7209	IC TDA2579/N6			
	410 047 9803	IC TDA2579A/N7			
IC1K1	410 039 1709	IC SN74LS123N			
	409 042 6900	IC SN74LS123N			
IC101	410 039 7008	IC TDA4555/V8			
IC102	409 185 8908	IC TDA4580/N4			
IC801	410 115 6604	IC M37102M8-820SP			
IC802	409 032 3803	IC MN1280-S			
IC803	409 199 5306	IC M6M80011AP			
IC804	409 160 0507	IC UPD6326C			
IC851	409 114 4803	IC LB1641			
IC852	409 114 4803	IC LB1641			
CAPACITOR					

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
C1A2	403 067 6501	MT-COMPO 0.18U J 50V	C172	403 042 2405	ELECT 100U M 16V
C1A3	403 085 4008	NP-ELECT 10U M 16V	C805	403 057 0403	POLYESTER 0.01U K 50V
C1A4	403 070 3801	CERAMIC 120P K 50V		403 057 1004	POLYESTER 0.01U K 50V
C1A5	403 049 9803	ELECT 2.2U M 50V	C827	403 069 8305	CERAMIC 0.01U Z 50V
C1A6	403 042 7707	ELECT 22U M 16V	C828	403 041 4509	ELECT 470U M 10V
C1A7	403 041 8804	ELECT 10U M 16V	C829	403 014 0705	CERAMIC 18P J 50V
C1A9	403 067 6204	MT-COMPO 0.15U J 50V	C831	403 014 0705	CERAMIC 18P J 50V
C1J1	403 067 6204	MT-COMPO 0.15U J 50V	C832	403 067 5603	MT-COMPO 0.1U J 50V
C1J2	403 069 8305	CERAMIC 0.01U Z 50V	C834	403 069 8305	CERAMIC 0.01U Z 50V
C1J3	403 042 7707	ELECT 22U M 16V	C835	403 067 6709	MT-COMPO 0.22U J 50V
C1J4	403 081 2800	POLYPRO 2200P J 100V	C836	403 067 5603	MT-COMPO 0.1U J 50V
C1J5	403 067 5603	MT-COMPO 0.1U J 50V	C838	403 067 6709	MT-COMPO 0.22U J 50V
C1J6	403 042 2405	ELECT 100U M 16V	C839	403 067 5603	MT-COMPO 0.1U J 50V
C1J7	403 074 2602	CERAMIC 0.047U Z 50V	C841	403 040 3701	ELECT 220U M 10V
C1J8	403 043 9106	ELECT 47U M 16V	C851	403 069 8305	CERAMIC 0.01U Z 50V
C1K1	403 056 7106	POLYESTER 1000P J 50V	C852	403 069 8305	CERAMIC 0.01U Z 50V
	403 056 7700	POLYESTER 1000P J 50V	C853	403 044 1703	ELECT 470U M 16V
C1K2	403 059 2801	POLYESTER 2200P J 50V	C855	403 069 8305	CERAMIC 0.01U Z 50V
	403 059 3402	POLYESTER 2200P J 50V	C856	403 069 8305	CERAMIC 0.01U Z 50V
C1K3	403 041 2109	ELECT 47U M 10V	C857	403 043 0202	ELECT 220U M 16V
C111	403 071 1707	CERAMIC 180P K 50V	C858	403 044 1703	ELECT 470U M 16V
C112	403 030 5401	CERAMIC 68P J 50V	C872	403 072 7708	CERAMIC 330P K 50V
C113	403 014 8008	CERAMIC 180P J 50V	C873	403 072 7708	CERAMIC 330P K 50V
C114	403 017 7701	CERAMIC 22P J 50V	C881	403 043 0202	ELECT 220U M 16V
C116	403 071 5606	CERAMIC 220P K 50V	C882	403 040 9406	ELECT 330U M 10V
C117	403 017 7701	CERAMIC 22P J 50V	C883	403 043 0202	ELECT 220U M 16V
C118	403 030 5401	CERAMIC 68P J 50V			
C119	403 014 8008	CERAMIC 180P J 50V			
C120	403 069 8305	CERAMIC 0.01U Z 50V			
C121	403 014 8008	CERAMIC 180P J 50V			
C122	403 069 8305	CERAMIC 0.01U Z 50V			
C123	403 067 5603	MT-COMPO 0.1U J 50V			
C124	403 072 2604	CERAMIC 0.022U Z 50V			
C125	403 042 2405	ELECT 100U M 16V			
C126	403 043 6006	ELECT 330U M 16V			
C127	403 069 8305	CERAMIC 0.01U Z 50V			
C128	403 067 7300	MT-COMPO 0.33U J 50V			
C129	403 069 8305	CERAMIC 0.01U Z 50V			
C131	403 067 7706	MT-COMPO 0.047U J 50V			
C132	403 067 7300	MT-COMPO 0.33U J 50V			
C133	403 072 2604	CERAMIC 0.022U Z 50V			
C134	403 060 8205	POLYESTER 0.033U K 50V			
	403 060 8809	POLYESTER 0.033U K 50V			
C135	403 069 8305	CERAMIC 0.01U Z 50V			
C136	403 069 8305	CERAMIC 0.01U Z 50V			
C137	403 014 8008	CERAMIC 180P J 50V			
C138	403 030 5104	CERAMIC 68P J 50V			
C139	403 069 8305	CERAMIC 0.01U Z 50V			
C141	403 069 8305	CERAMIC 0.01U Z 50V			
C142	403 069 8305	CERAMIC 0.01U Z 50V			
C143	403 069 8305	CERAMIC 0.01U Z 50V			
C144	403 067 6709	MT-COMPO 0.22U J 50V			
C145	403 049 9803	ELECT 2.2U M 50V			

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
R016	401 022 6801	CARBON 75 JA 1/4W	R1A4	401 024 7004	CARBON 1K JA 1/6W
R017	401 024 7707	CARBON 100K JA 1/6W	R1A5	401 027 2600	CARBON 5.6K JA 1/6W
R018	401 024 7707	CARBON 100K JA 1/6W	R1A6	401 024 9701	CARBON 12K JA 1/6W
R021	401 022 6801	CARBON 75 JA 1/4W	R1A7	401 027 5502	CARBON 6.8K JA 1/6W
R022	401 022 6801	CARBON 75 JA 1/4W	R1A8	401 025 7102	CARBON 22 JA 1/6W
R023	401 024 7004	CARBON 1K JA 1/6W	R1A9	401 027 8305	CARBON 820 JA 1/6W
R024	401 024 7004	CARBON 1K JA 1/6W	R1F0	401 027 0309	CARBON 47K JA 1/6W
R025	401 025 1605	CARBON 1.5K JA 1/6W	R1F1	401 024 7004	CARBON 1K JA 1/6W
R026	401 025 1605	CARBON 1.5K JA 1/6W	R1F2	401 027 5502	CARBON 6.8K JA 1/6W
R027	401 020 0801	CARBON 470 JA 1/4W	R1F3	401 025 1902	CARBON 15K JA 1/6W
R028	401 026 9303	CARBON 47 JA 1/6W	R1F4	401 026 9907	CARBON 4.7K JA 1/6W
R029	401 024 7400	CARBON 10K JA 1/6W	R1F5	401 026 7002	CARBON 3.9K JA 1/6W
R031	401 026 4605	CARBON 33K JA 1/6W	R1F6	401 027 5502	CARBON 6.8K JA 1/6W
R032	401 026 4605	CARBON 33K JA 1/6W	R1F7	401 024 7004	CARBON 1K JA 1/6W
R033	401 025 1605	CARBON 1.5K JA 1/6W	R1F8	401 026 7002	CARBON 3.9K JA 1/6W
R034	401 025 1605	CARBON 1.5K JA 1/6W	R1F9	401 027 0309	CARBON 47K JA 1/6W
R035	401 025 1605	CARBON 1.5K JA 1/6W	R1J1	401 009 5803	CARBON 330 JA 1/2W
R036	401 024 6700	CARBON 100 JA 1/6W	R1J4	401 026 7408	CARBON 39K JA 1/6W
R037	401 024 6700	CARBON 100 JA 1/6W	R1J5	401 026 4605	CARBON 33K JA 1/6W
R041	401 027 8305	CARBON 820 JA 1/6W	R1J6	401 026 4605	CARBON 33K JA 1/6W
R042	401 027 8305	CARBON 820 JA 1/6W	R1J7	401 027 3003	CARBON 56K JA 1/6W
R043	401 026 9600	CARBON 470 JA 1/6W	R1J8	401 024 6700	CARBON 100 JA 1/6W
R044	401 024 6700	CARBON 100 JA 1/6W	R1J9	401 027 5502	CARBON 6.8K JA 1/6W
R045	401 024 7004	CARBON 1K JA 1/6W	R1K1	401 026 1307	CARBON 27K JA 1/6W
R046	401 026 9303	CARBON 47 JA 1/6W	R1K2	401 025 8208	CARBON 22K JA 1/6W
R047	401 024 7004	CARBON 1K JA 1/6W	R1K4	401 009 5803	CARBON 330 JA 1/2W
R048	401 026 9907	CARBON 4.7K JA 1/6W	R101	401 024 7004	CARBON 1K JA 1/6W
R049	401 027 5502	CARBON 6.8K JA 1/6W	R102	401 024 7004	CARBON 1K JA 1/6W
R051	401 024 7400	CARBON 10K JA 1/6W	R103	401 024 7004	CARBON 1K JA 1/6W
R052	401 025 1605	CARBON 1.5K JA 1/6W	R112	401 025 1605	CARBON 1.5K JA 1/6W
R053	401 025 7805	CARBON 2.2K JA 1/6W	R113	401 027 2303	CARBON 560 JA 1/6W
R054	401 027 5502	CARBON 6.8K JA 1/6W	R114	401 027 8305	CARBON 820 JA 1/6W
R055	401 026 9600	CARBON 470 JA 1/6W	R115	401 027 2303	CARBON 560 JA 1/6W
R056	401 026 3905	CARBON 330 JA 1/6W	R116	401 025 7409	CARBON 220 JA 1/6W
R057	401 025 7805	CARBON 2.2K JA 1/6W	R117	401 024 9305	CARBON 1.2K JA 1/6W
R058	401 026 3905	CARBON 330 JA 1/6W	R118	401 026 6609	CARBON 390 JA 1/6W
R059	401 026 4605	CARBON 33K JA 1/6W	R119	401 026 9600	CARBON 470 JA 1/6W
R060	401 024 7400	CARBON 10K JA 1/6W	R121	401 024 7400	CARBON 10K JA 1/6W
R062	401 025 1605	CARBON 1.5K JA 1/6W	R122	401 027 2600	CARBON 5.6K JA 1/6W
R064	401 025 1605	CARBON 1.5K JA 1/6W	R123	401 027 3201	CARBON 560K JA 1/6W
R065	401 024 7400	CARBON 10K JA 1/6W	R124	401 027 0309	CARBON 47K JA 1/6W
R066	401 024 7400	CARBON 10K JA 1/6W	R125	401 026 1307	CARBON 27K JA 1/6W
R067	401 027 0309	CARBON 47K JA 1/6W	R131	401 026 9907	CARBON 4.7K JA 1/6W
R068	401 027 0309	CARBON 47K JA 1/6W	R133	401 024 7400	CARBON 10K JA 1/6W
R069	401 025 7805	CARBON 2.2K JA 1/6W	R134	401 024 7400	CARBON 10K JA 1/6W
R071	401 071 0607	OXIDE-MT 15 JA 3W	R136	401 026 4605	CARBON 33K JA 1/6W
R072	401 070 8000	OXIDE-MT 12 JA 3W	R137	401 025 4606	CARBON 18K JA 1/6W
R081	401 024 7707	CARBON 100K JA 1/6W	R138	401 027 5502	CARBON 6.8K JA 1/6W
R082	401 025 0004	CARBON 120K JA 1/6W	R139	401 025 8208	CARBON 22K JA 1/6W
R083	401 024 7707	CARBON 100K JA 1/6W	R141	401 025 1902	CARBON 15K JA 1/6W
R084	401 025 0004	CARBON 120K JA 1/6W	R142	401 024 7400	CARBON 10K JA 1/6W
R085	401 027 3003	CARBON 56K JA 1/6W	R143	401 024 6700	CARBON 100 JA 1/6W
R086	401 027 2600	CARBON 5.6K JA 1/6W	R144	401 024 7707	CARBON 100K JA 1/6W
R087	401 027 3003	CARBON 56K JA 1/6W	R146	401 025 0004	CARBON 120K JA 1/6W
R088	401 027 2600	CARBON 5.6K JA 1/6W	R147	401 027 2600	CARBON 5.6K JA 1/6W
R089	401 025 1902	CARBON 15K JA 1/6W	R148	401 027 2600	CARBON 5.6K JA 1/6W
R090	401 027 8305	CARBON 820 JA 1/6W	R149	401 027 5205	CARBON 680 JA 1/6W
R091	401 026 7002	CARBON 3.9K JA 1/6W	R151	401 024 7400	CARBON 10K JA 1/6W
R092	401 024 7400	CARBON 10K JA 1/6W	R152	401 026 4605	CARBON 33K JA 1/6W
R093	401 025 8208	CARBON 22K JA 1/6W	R153	401 025 1605	CARBON 1.5K JA 1/6W
R094	401 027 5205	CARBON 680 JA 1/6W	R154	401 027 5205	CARBON 680 JA 1/6W
R095	401 024 7400	CARBON 10K JA 1/6W	R156	401 027 5908	CARBON 68K JA 1/6W
R096	401 019 6302	CARBON 4.7 JB 1/4W	R157	401 025 1902	CARBON 15K JA 1/6W
R097	401 027 2600	CARBON 5.6K JA 1/6W	R158	401 024 7004	CARBON 1K JA 1/6W
R098	401 024 7400	CARBON 10K JA 1/6W	R161	401 022 6801	CARBON 75 JA 1/4W
R099	401 026 6609	CARBON 390 JA 1/6W	R162	401 022 6801	CARBON 75 JA 1/4W
R1A0	401 027 2600	CARBON 5.6K JA 1/6W	R163	401 022 6801	CARBON 75 JA 1/4W
R1A1	401 024 7707	CARBON 100K JA 1/6W	R164	401 022 6801	CARBON 75 JA 1/4W
R1A2	401 024 7400	CARBON 10K JA 1/6W	R165	401 024 6700	CARBON 100 JA 1/6W
R1A3	401 027 0507	CARBON 470K JA 1/6W	R166	401 024 6700	CARBON 100 JA 1/6W

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
R167	401 024 6700	CARBON 100 JA 1/6W	R842	401 026 9907	CARBON 4. 7K JA 1/6W
R171	401 027 5205	CARBON 680 JA 1/6W	R843	401 027 2600	CARBON 5. 6K JA 1/6W
R173	401 027 5205	CARBON 680 JA 1/6W	R844	401 026 9907	CARBON 4. 7K JA 1/6W
R175	401 027 5205	CARBON 680 JA 1/6W	R845	401 025 4606	CARBON 18K JA 1/6W
R177	401 026 9907	CARBON 4. 7K JA 1/6W	R847	401 024 7004	CARBON 1K JA 1/6W
R181	401 027 8602	CARBON 8. 2K JA 1/6W	R848	401 024 7004	CARBON 1K JA 1/6W
R182	401 027 2303	CARBON 560 JA 1/6W	R851	401 026 4308	CARBON 3. 3K JA 1/6W
R183	401 024 6700	CARBON 100 JA 1/6W	R852	401 026 4308	CARBON 3. 3K JA 1/6W
R184	401 026 4605	CARBON 33K JA 1/6W	R853	401 024 7004	CARBON 1K JA 1/6W
R185	401 026 7002	CARBON 3. 9K JA 1/6W	R854	401 016 9702	CARBON 27 JA 1/4W
R186	401 026 1307	CARBON 27K JA 1/6W	R855	401 026 4308	CARBON 3. 3K JA 1/6W
R187	401 026 4605	CARBON 33K JA 1/6W	R856	401 026 4308	CARBON 3. 3K JA 1/6W
R188	401 027 2600	CARBON 5. 6K JA 1/6W	R857	401 024 7004	CARBON 1K JA 1/6W
R192	401 024 7400	CARBON 10K JA 1/6W	R858	401 016 9702	CARBON 27 JA 1/4W
R8F2	401 027 8602	CARBON 8. 2K JA 1/6W	R861	401 025 8703	CARBON 220K JA 1/6W
R8F6	401 027 8602	CARBON 8. 2K JA 1/6W	R871	401 027 2600	CARBON 5. 6K JA 1/6W
R8H1	401 026 1000	CARBON 2. 7K JA 1/6W	R872	401 025 4200	CARBON 1. 8K JA 1/6W
R8H2	401 026 9907	CARBON 4. 7K JA 1/6W	R873	401 025 7805	CARBON 2. 2K JA 1/6W
R8H3	401 025 1605	CARBON 1. 5K JA 1/6W	R875	401 024 7400	CARBON 10K JA 1/6W
R8H4	401 024 7400	CARBON 10K JA 1/6W	R876	401 024 7400	CARBON 10K JA 1/6W
R8H5	401 026 7002	CARBON 3. 9K JA 1/6W	R881	401 016 9801	CARBON 27 JB 1/4W
R8H6	401 027 5502	CARBON 6. 8K JA 1/6W	R882	401 027 5205	CARBON 680 JA 1/6W
R8K2	401 026 4605	CARBON 33K JA 1/6W	R891	401 024 6700	CARBON 100 JA 1/6W
R8K4	401 024 7400	CARBON 10K JA 1/6W	R892	401 024 6700	CARBON 100 JA 1/6W
R8K5	401 024 7400	CARBON 10K JA 1/6W	R893	401 024 9305	CARBON 1. 2K JA 1/6W
R8K6	401 025 8208	CARBON 22K JA 1/6W	R894	401 024 9305	CARBON 1. 2K JA 1/6W
R8L1	401 027 2600	CARBON 5. 6K JA 1/6W	VARIABLE RESISTER/CONDENSER		
R8L2	401 027 2600	CARBON 5. 6K JA 1/6W	VC131	610 003 0329	TRIMMER CONDENSER
R8L3	401 024 7400	CARBON 10K JA 1/6W	VC132	610 003 0329	TRIMMER CONDENSER
R8L4	401 027 2600	CARBON 5. 6K JA 1/6W	VR1J1	610 019 4069	VR B-10K
R8L5	401 026 4605	CARBON 33K JA 1/6W	VR121	610 019 3994	VR B-200
R8L6	401 027 2600	CARBON 5. 6K JA 1/6W	VR151	610 019 4069	VR B-10K
R8M4	401 024 7004	CARBON 1K JA 1/6W	VR803	610 019 4045	VR B-3K
R801	401 024 7004	CARBON 1K JA 1/6W	TRANSFORMER		
R802	401 024 7400	CARBON 10K JA 1/6W	T041	610 037 5536	S COIL
R803	401 024 7400	CARBON 10K JA 1/6W	T111	610 037 5314	S COIL
R804	401 024 7400	CARBON 10K JA 1/6W	T112	610 037 5314	S COIL
R805	401 024 7004	CARBON 1K JA 1/6W	T121	610 037 5536	S COIL
R806	401 024 7400	CARBON 10K JA 1/6W	T131	610 037 5314	S COIL
R807	401 024 7400	CARBON 10K JA 1/6W	COIL		
R808	401 024 7400	CARBON 10K JA 1/6W	L031	610 029 6466	PEAKING COIL 8. 2UH K
R810	401 024 6700	CARBON 100 JA 1/6W	L041	610 029 5728	PEAKING COIL
R811	401 024 6700	CARBON 100 JA 1/6W	L042	610 029 5582	PEAKING COIL 10UH J
R812	401 024 6700	CARBON 100 JA 1/6W	L052	610 029 5889	PEAKING COIL 8. 2UH J
R813	401 024 6700	CARBON 100 JA 1/6W	L053	610 029 5803	PEAKING COIL 5. 6UH J
R814	401 024 6700	CARBON 100 JA 1/6W	L062	610 030 0767	DELAY LINE
R815	401 024 6700	CARBON 100 JA 1/6W	L063	610 029 6466	PEAKING COIL 8. 2UH K
R816	401 024 6700	CARBON 100 JA 1/6W	L065	610 224 3864	DELAY LINE
R817	401 024 6700	CARBON 100 JA 1/6W	L081	610 029 5926	PEAKING COIL 10UH K
R820	401 025 7409	CARBON 220 JA 1/6W	L121	610 029 6466	PEAKING COIL 8. 2UH K
R821	401 025 1605	CARBON 1. 5K JA 1/6W	L122	610 220 7613	DELAY LINE
R822	401 025 1605	CARBON 1. 5K JA 1/6W	L123	610 029 6244	PEAKING COIL 33UH K
R823	401 025 1605	CARBON 1. 5K JA 1/6W	DIODE		
R824	401 025 1605	CARBON 1. 5K JA 1/6W	DB801	407 137 8402	ZENER DIODE B202S-0119
R825	401 027 2600	CARBON 5. 6K JA 1/6W	DOG1	407 007 9904	DIODE GMA01
R826	401 024 9701	CARBON 12K JA 1/6W		407 012 4406	DIODE 1SS133
R827	401 025 4606	CARBON 18K JA 1/6W		407 012 5809	DIODE 1SS176
R828	401 024 6700	CARBON 100 JA 1/6W	DOG2	407 007 9904	DIODE GMA01
R829	401 024 6700	CARBON 100 JA 1/6W		407 012 4406	DIODE 1SS133
R830	401 024 7400	CARBON 10K JA 1/6W		407 012 5809	DIODE 1SS176
R831	401 024 7004	CARBON 1K JA 1/6W	D002	407 075 9905	ZENER DIODE EQA03-11A
R832	401 024 6700	CARBON 100 JA 1/6W	D003	407 075 9905	ZENER DIODE EQA03-11A
R833	401 025 1902	CARBON 15K JA 1/6W	D004	407 075 9905	ZENER DIODE EQA03-11A
R834	401 024 7400	CARBON 10K JA 1/6W	D031	407 007 9904	DIODE GMA01
R835	401 027 2600	CARBON 5. 6K JA 1/6W		407 012 4406	DIODE 1SS133
R836	401 027 5908	CARBON 68K JA 1/6W		407 012 5809	DIODE 1SS176
R837	401 024 7400	CARBON 10K JA 1/6W			
R838	401 026 9907	CARBON 4. 7K JA 1/6W			
R839	401 024 7400	CARBON 10K JA 1/6W			
R841	401 027 2600	CARBON 5. 6K JA 1/6W			

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q2303	405 020 7501	TR 2SC945A-PA	Q2314	405 019 3804	TR 2SC536-G-NP
	405 020 7709	TR 2SC945A-QA		405 020 7501	TR 2SC945A-PA
	405 020 7907	TR 2SC945A-RA		405 020 7709	TR 2SC945A-QA
	405 011 7305	TR 2SC1740-Q		405 020 7907	TR 2SC945A-RA
	405 011 7404	TR 2SC1740-R		405 011 7305	TR 2SC1740-Q
	405 011 7503	TR 2SC1740-S		405 011 7404	TR 2SC1740-R
	405 012 2002	TR 2SC1815-GR		405 011 7503	TR 2SC1740-S
	405 012 2101	TR 2SC1815-O		405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y		405 012 2101	TR 2SC1815-O
	405 019 1909	TR 2SC536-E-NP		405 012 2309	TR 2SC1815-Y
Q2304	405 019 2708	TR 2SC536-F-NP	Q2315	405 019 1909	TR 2SC536-E-NP
	405 019 3804	TR 2SC536-G-NP		405 019 2708	TR 2SC536-F-NP
	405 020 7501	TR 2SC945A-PA		405 019 3804	TR 2SC536-G-NP
	405 020 7709	TR 2SC945A-QA		405 019 3804	TR 2SC536-G-NP
	405 020 7907	TR 2SC945A-RA		405 020 7501	TR 2SC945A-PA
	405 011 7305	TR 2SC1740-Q		405 020 7709	TR 2SC945A-QA
	405 011 7404	TR 2SC1740-R		405 020 7907	TR 2SC945A-RA
	405 011 7503	TR 2SC1740-S		405 011 7305	TR 2SC1740-Q
	405 012 2002	TR 2SC1815-GR		405 011 7404	TR 2SC1740-R
	405 012 2101	TR 2SC1815-O		405 011 7503	TR 2SC1740-S
Q2305	405 012 2309	TR 2SC1815-Y	Q2316	405 012 2002	TR 2SC1815-GR
	405 019 1909	TR 2SC536-E-NP		405 012 2101	TR 2SC1815-O
	405 019 2708	TR 2SC536-F-NP		405 012 2309	TR 2SC1815-Y
	405 019 3804	TR 2SC536-G-NP		405 019 1909	TR 2SC536-E-NP
	405 020 7501	TR 2SC945A-PA		405 019 2708	TR 2SC536-F-NP
	405 020 7709	TR 2SC945A-QA		405 019 3804	TR 2SC536-G-NP
	405 020 7907	TR 2SC945A-RA		405 020 7501	TR 2SC945A-PA
	405 011 7305	TR 2SC1740-Q		405 020 7709	TR 2SC945A-QA
	405 011 7404	TR 2SC1740-R		405 020 7907	TR 2SC945A-RA
	405 011 7503	TR 2SC1740-S		405 011 7305	TR 2SC1740-Q
Q2306	405 012 2002	TR 2SC1815-GR	Q2317	405 011 7404	TR 2SC1740-R
	405 012 2101	TR 2SC1815-O		405 011 7503	TR 2SC1740-S
	405 012 2309	TR 2SC1815-Y		405 012 2002	TR 2SC1815-GR
	405 019 1909	TR 2SC536-E-NP		405 012 2101	TR 2SC1815-O
	405 019 2708	TR 2SC536-F-NP		405 012 2309	TR 2SC1815-Y
	405 019 3804	TR 2SC536-G-NP		405 019 1909	TR 2SC536-E-NP
	405 020 7501	TR 2SC945A-PA		405 019 2708	TR 2SC536-F-NP
	405 020 7709	TR 2SC945A-QA		405 019 3804	TR 2SC536-G-NP
	405 020 7907	TR 2SC945A-RA		405 020 7501	TR 2SC945A-PA
	405 011 7305	TR 2SC1740-Q		405 020 7709	TR 2SC945A-QA
Q2307	405 011 7404	TR 2SC1740-R	Q2323	405 020 7907	TR 2SC945A-RA
	405 011 7503	TR 2SC1740-S		405 011 7305	TR 2SC1740-Q
	405 012 2002	TR 2SC1815-GR		405 011 7404	TR 2SC1740-R
	405 012 2101	TR 2SC1815-O		405 011 7503	TR 2SC1740-S
	405 012 2309	TR 2SC1815-Y		405 012 2002	TR 2SC1815-GR
	405 019 1909	TR 2SC536-E-NP		405 012 2101	TR 2SC1815-O
	405 019 2708	TR 2SC536-F-NP		405 012 2309	TR 2SC1815-Y
	405 019 3804	TR 2SC536-G-NP		405 019 1909	TR 2SC536-E-NP
	405 020 7501	TR 2SC945A-PA		405 019 2708	TR 2SC536-F-NP
	405 020 7709	TR 2SC945A-QA		405 019 3804	TR 2SC536-G-NP
Q2313	405 020 7907	TR 2SC945A-RA	Q2324	405 020 7501	TR 2SC945A-PA
	405 011 7305	TR 2SC1740-Q		405 020 7709	TR 2SC945A-QA
	405 011 7404	TR 2SC1740-R		405 020 7907	TR 2SC945A-RA
	405 011 7503	TR 2SC1740-S		405 011 7305	TR 2SC1740-Q
	405 012 2101	TR 2SC1815-O		405 011 7404	TR 2SC1740-R
	405 012 2309	TR 2SC1815-Y		405 011 7503	TR 2SC1740-S
	405 019 1909	TR 2SC536-E-NP		405 012 2002	TR 2SC1815-GR
	405 019 2708	TR 2SC536-F-NP		405 012 2101	TR 2SC1815-O
				405 012 2309	TR 2SC1815-Y

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
02325	405 019 1909	TR 2SC536-E-NP	0262	405 004 3109	TR 2SA564A-Q(CU)
	405 019 2708	TR 2SC536-F-NP		405 004 3208	TR 2SA564A-R(CU)
	405 019 3804	TR 2SC536-G-NP		405 004 4205	TR 2SA608-E-CTV-NP
	405 020 7501	TR 2SC945A-PA		405 004 4809	TR 2SA608-F-CTV-NP
	405 020 7709	TR 2SC945A-QA		405 006 1103	TR 2SA933-Q
	405 020 7907	TR 2SC945A-RA		405 006 1202	TR 2SA933-R
	405 011 7305	TR 2SC1740-Q		405 011 7305	TR 2SC1740-Q
	405 011 7404	TR 2SC1740-R		405 011 7404	TR 2SC1740-R
	405 011 7503	TR 2SC1740-S		405 011 7503	TR 2SC1740-S
	405 012 2002	TR 2SC1815-GR		405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O		405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y		405 012 2309	TR 2SC1815-Y
	405 019 1909	TR 2SC536-E-NP		405 019 1909	TR 2SC536-E-NP
	405 019 2708	TR 2SC536-F-NP		405 019 2708	TR 2SC536-F-NP
	405 019 3804	TR 2SC536-G-NP		405 019 3804	TR 2SC536-G-NP
02326	405 020 7501	TR 2SC945A-PA	0263	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA		405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA		405 020 7907	TR 2SC945A-RA
	405 011 7305	TR 2SC1740-Q		405 018 0002	TR 2SC3331-S
	405 011 7404	TR 2SC1740-R		405 018 0101	TR 2SC3331-T
	405 011 7503	TR 2SC1740-S	0264	405 003 5609	TR 2SA1318-S
	405 012 2002	TR 2SC1815-GR		405 003 5708	TR 2SA1318-T
	405 012 2101	TR 2SC1815-O	0271	406 000 6804	TR 2SA1015-GR(SAN)
	405 012 2309	TR 2SC1815-Y		405 001 7407	TR 2SA1015-O(SAN)
	405 019 1909	TR 2SC536-E-NP	0272	405 001 7605	TR 2SA1015-Y(SAN)
	405 019 2708	TR 2SC536-F-NP		405 004 3109	TR 2SA564A-Q(CU)
	405 019 3804	TR 2SC536-G-NP		405 004 3208	TR 2SA564A-R(CU)
	405 020 7501	TR 2SC945A-PA		405 004 4205	TR 2SA608-E-CTV-NP
	405 020 7709	TR 2SC945A-QA		405 004 4809	TR 2SA608-F-CTV-NP
	405 020 7907	TR 2SC945A-RA		405 006 1103	TR 2SA933-Q
02327	405 011 7305	TR 2SC1740-Q		405 006 1202	TR 2SA933-R
	405 011 7404	TR 2SC1740-R		405 011 7305	TR 2SC1740-Q
	405 011 7503	TR 2SC1740-S		405 011 7404	TR 2SC1740-R
	405 012 2002	TR 2SC1815-GR		405 011 7503	TR 2SC1740-S
	405 012 2101	TR 2SC1815-O		405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y		405 012 2101	TR 2SC1815-O
	405 019 1909	TR 2SC536-E-NP		405 012 2309	TR 2SC1815-Y
	405 019 2708	TR 2SC536-F-NP		405 019 1909	TR 2SC536-E-NP
	405 019 3804	TR 2SC536-G-NP		405 019 2708	TR 2SC536-F-NP
	405 020 7501	TR 2SC945A-PA		405 019 3804	TR 2SC536-G-NP
	405 020 7709	TR 2SC945A-QA		405 020 7501	TR 2SC945A-PA
	405 020 7907	TR 2SC945A-RA		405 020 7709	TR 2SC945A-QA
0251	406 000 6804	TR 2SA1015-GR(SAN)		405 020 7907	TR 2SC945A-RA
	405 001 7407	TR 2SA1015-O(SAN)	0273	405 018 0002	TR 2SC3331-S
	405 001 7605	TR 2SA1015-Y(SAN)		405 018 0101	TR 2SC3331-T
	405 004 3109	TR 2SA564A-Q(CU)	0274	405 003 5609	TR 2SA1318-S
	405 004 3208	TR 2SA564A-R(CU)		405 003 5708	TR 2SA1318-T
	405 004 4205	TR 2SA608-E-CTV-NP	0281	405 018 0002	TR 2SC3331-S
	405 004 4809	TR 2SA608-F-CTV-NP		405 018 0101	TR 2SC3331-T
	405 006 1103	TR 2SA933-Q	0282	405 003 5609	TR 2SA1318-S
	405 006 1202	TR 2SA933-R		405 003 5708	TR 2SA1318-T
0252	405 011 7305	TR 2SC1740-Q	0283	405 018 0002	TR 2SC3331-S
	405 011 7404	TR 2SC1740-R		405 018 0101	TR 2SC3331-T
	405 011 7503	TR 2SC1740-S	0284	405 003 5609	TR 2SA1318-S
	405 012 2002	TR 2SC1815-GR		405 003 5708	TR 2SA1318-T
	405 012 2101	TR 2SC1815-O	0285	405 018 0002	TR 2SC3331-S
	405 012 2309	TR 2SC1815-Y		405 018 0101	TR 2SC3331-T
	405 019 1909	TR 2SC536-E-NP	0286	405 003 5609	TR 2SA1318-S
	405 019 2708	TR 2SC536-F-NP		405 003 5708	TR 2SA1318-T
	405 019 3804	TR 2SC536-G-NP	0301	405 011 7305	TR 2SC1740-Q
	405 020 7501	TR 2SC945A-PA		405 011 7404	TR 2SC1740-R
	405 020 7709	TR 2SC945A-QA		405 011 7503	TR 2SC1740-S
	405 020 7907	TR 2SC945A-RA		405 012 2002	TR 2SC1815-GR
0253	405 018 0002	TR 2SC3331-S		405 012 2101	TR 2SC1815-O
	405 018 0101	TR 2SC3331-T		405 012 2309	TR 2SC1815-Y
0254	405 003 5609	TR 2SA1318-S		405 019 1909	TR 2SC536-E-NP
	405 003 5708	TR 2SA1318-T		405 019 2708	TR 2SC536-F-NP
0261	406 000 6804	TR 2SA1015-GR(SAN)		405 019 3804	TR 2SC536-G-NP
	405 001 7407	TR 2SA1015-O(SAN)		405 020 7501	TR 2SC945A-PA
	405 001 7605	TR 2SA1015-Y(SAN)		405 020 7709	TR 2SC945A-QA

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q302	405 020 7907	TR 2SC945A-RA	Q309	405 011 7404	TR 2SC1740-R
	405 011 7305	TR 2SC1740-Q		405 011 7503	TR 2SC1740-S
	405 011 7404	TR 2SC1740-R		405 012 2002	TR 2SC1815-GR
	405 011 7503	TR 2SC1740-S		405 012 2101	TR 2SC1815-O
	405 012 2002	TR 2SC1815-GR		405 012 2309	TR 2SC1815-Y
	405 012 2101	TR 2SC1815-O		405 019 1909	TR 2SC536-E-NP
	405 012 2309	TR 2SC1815-Y		405 019 2708	TR 2SC536-F-NP
	405 019 1909	TR 2SC536-E-NP		405 019 3804	TR 2SC536-G-NP
	405 019 2708	TR 2SC536-F-NP		405 020 7501	TR 2SC945A-PA
	405 019 3804	TR 2SC536-G-NP		405 020 7709	TR 2SC945A-QA
	405 020 7501	TR 2SC945A-PA		405 020 7907	TR 2SC945A-RA
	405 020 7709	TR 2SC945A-QA		405 011 7305	TR 2SC1740-Q
Q303	405 020 7907	TR 2SC945A-RA		405 011 7404	TR 2SC1740-R
	405 011 7305	TR 2SC1740-Q		405 011 7503	TR 2SC1740-S
	405 011 7404	TR 2SC1740-R		405 012 2002	TR 2SC1815-GR
	405 011 7503	TR 2SC1740-S		405 012 2101	TR 2SC1815-O
	405 012 2002	TR 2SC1815-GR		405 012 2309	TR 2SC1815-Y
	405 012 2101	TR 2SC1815-O		405 019 1909	TR 2SC536-E-NP
	405 012 2309	TR 2SC1815-Y		405 019 2708	TR 2SC536-F-NP
	405 019 1909	TR 2SC536-E-NP		405 019 3804	TR 2SC536-G-NP
	405 019 2708	TR 2SC536-F-NP		405 020 7501	TR 2SC945A-PA
	405 019 3804	TR 2SC536-G-NP		405 020 7709	TR 2SC945A-QA
	405 020 7501	TR 2SC945A-PA	Q310	405 020 7907	TR 2SC945A-RA
	405 020 7709	TR 2SC945A-QA		406 000 6804	TR 2SA1015-GR(SAN)
Q304	405 020 7907	TR 2SC945A-RA		405 001 7407	TR 2SA1015-O(SAN)
	405 011 7305	TR 2SC1740-Q		405 001 7605	TR 2SA1015-Y(SAN)
	405 011 7404	TR 2SC1740-R		405 004 3109	TR 2SA564A-Q(CU)
	405 011 7503	TR 2SC1740-S		405 004 3208	TR 2SA564A-R(CU)
	405 012 2002	TR 2SC1815-GR		405 004 4205	TR 2SA608-E-CTV-NP
	405 012 2101	TR 2SC1815-O		405 004 4809	TR 2SA608-F-CTV-NP
	405 012 2309	TR 2SC1815-Y		405 006 1103	TR 2SA933-Q
	405 019 1909	TR 2SC536-E-NP	Q311	405 006 1202	TR 2SA933-R
	405 019 2708	TR 2SC536-F-NP		405 011 7305	TR 2SC1740-Q
	405 019 3804	TR 2SC536-G-NP		405 011 7404	TR 2SC1740-R
Q305	405 020 7501	TR 2SC945A-PA		405 011 7503	TR 2SC1740-S
	405 020 7709	TR 2SC945A-QA		405 012 2002	TR 2SC1815-GR
	405 011 7305	TR 2SC1740-Q		405 012 2101	TR 2SC1815-O
	405 011 7404	TR 2SC1740-R		405 012 2309	TR 2SC1815-Y
	405 011 7503	TR 2SC1740-S		405 019 1909	TR 2SC536-E-NP
	405 012 2002	TR 2SC1815-GR		405 019 2708	TR 2SC536-F-NP
	405 012 2101	TR 2SC1815-O		405 019 3804	TR 2SC536-G-NP
	405 012 2309	TR 2SC1815-Y		405 020 7501	TR 2SC945A-PA
	405 019 1909	TR 2SC536-E-NP		405 020 7709	TR 2SC945A-QA
	405 019 2708	TR 2SC536-F-NP	Q312	405 020 7907	TR 2SC945A-RA
	405 019 3804	TR 2SC536-G-NP		406 000 6804	TR 2SA1015-GR(SAN)
Q306	405 020 7501	TR 2SC945A-PA		405 001 7407	TR 2SA1015-O(SAN)
	405 020 7709	TR 2SC945A-QA		405 001 7605	TR 2SA1015-Y(SAN)
	405 020 7907	TR 2SC945A-RA		405 004 3109	TR 2SA564A-Q(CU)
	406 000 6804	TR 2SA1015-GR(SAN)		405 004 3208	TR 2SA564A-R(CU)
	405 001 7407	TR 2SA1015-O(SAN)		405 004 4205	TR 2SA608-E-CTV-NP
	405 001 7605	TR 2SA1015-Y(SAN)		405 004 4809	TR 2SA608-F-CTV-NP
	405 004 3109	TR 2SA564A-Q(CU)		405 006 1103	TR 2SA933-Q
	405 004 3208	TR 2SA564A-R(CU)	Q401	405 006 1202	TR 2SA933-R
	405 004 4205	TR 2SA608-E-CTV-NP		405 011 7305	TR 2SC1740-Q
	405 004 4809	TR 2SA608-F-CTV-NP		405 011 7404	TR 2SC1740-R
Q307	405 006 1103	TR 2SA933-Q		405 011 7503	TR 2SC1740-S
	405 006 1202	TR 2SA933-R		405 012 2002	TR 2SC1815-GR
	405 011 7305	TR 2SC1740-Q		405 012 2101	TR 2SC1815-O
	405 011 7404	TR 2SC1740-R		405 012 2309	TR 2SC1815-Y
	405 011 7503	TR 2SC1740-S		405 019 1909	TR 2SC536-E-NP
	405 012 2002	TR 2SC1815-GR		405 019 2708	TR 2SC536-F-NP
	405 012 2101	TR 2SC1815-O		405 019 3804	TR 2SC536-G-NP
	405 012 2309	TR 2SC1815-Y		405 020 7501	TR 2SC945A-PA
	405 019 1909	TR 2SC536-E-NP	Q421	405 020 7709	TR 2SC945A-QA
	405 019 2708	TR 2SC536-F-NP		405 020 7907	TR 2SC945A-RA
	405 019 3804	TR 2SC536-G-NP		406 000 6804	TR 2SA1015-GR(SAN)
Q308	405 020 7501	TR 2SC945A-PA		405 001 7407	TR 2SA1015-O(SAN)
	405 020 7709	TR 2SC945A-QA		405 001 7605	TR 2SA1015-Y(SAN)
	405 020 7907	TR 2SC945A-RA		405 004 3109	TR 2SA564A-Q(CU)
	405 011 7305	TR 2SC1740-Q		405 004 3208	TR 2SA564A-R(CU)

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q422	405 004 4205	TR 2SA608-E-CTV-NP	Q501	405 020 7501	TR 2SC945A-PA
	405 004 4809	TR 2SA608-F-CTV-NP		405 020 7709	TR 2SC945A-QA
	405 006 1103	TR 2SA933-Q		405 020 7907	TR 2SC945A-RA
	405 006 1202	TR 2SA933-R		405 011 7305	TR 2SC1740-Q
	406 000 6804	TR 2SA1015-GR(SAN)		405 011 7404	TR 2SC1740-R
	405 001 7407	TR 2SA1015-O(SAN)		405 011 7503	TR 2SC1740-S
	405 001 7605	TR 2SA1015-Y(SAN)		405 012 2002	TR 2SC1815-GR
	405 004 3109	TR 2SA564A-Q(CU)		405 012 2101	TR 2SC1815-O
	405 004 3208	TR 2SA564A-R(CU)		405 012 2309	TR 2SC1815-Y
	405 004 4205	TR 2SA608-E-CTV-NP		405 019 1909	TR 2SC536-E-NP
Q470	405 004 4809	TR 2SA608-F-CTV-NP	Q502	405 019 2708	TR 2SC536-F-NP
	405 006 1103	TR 2SA933-Q		405 019 3804	TR 2SC536-G-NP
	405 006 1202	TR 2SA933-R		405 020 7501	TR 2SC945A-PA
	405 011 7305	TR 2SC1740-Q		405 020 7709	TR 2SC945A-QA
	405 011 7404	TR 2SC1740-R		405 020 7907	TR 2SC945A-RA
	405 011 7503	TR 2SC1740-S		405 011 7305	TR 2SC1740-Q
	405 012 2002	TR 2SC1815-GR		405 011 7404	TR 2SC1740-R
	405 012 2101	TR 2SC1815-O		405 011 7503	TR 2SC1740-S
	405 012 2309	TR 2SC1815-Y		405 012 2002	TR 2SC1815-GR
	405 019 1909	TR 2SC536-E-NP		405 012 2101	TR 2SC1815-O
Q481	405 019 2708	TR 2SC536-F-NP	Q503	405 012 2309	TR 2SC1815-Y
	405 019 3804	TR 2SC536-G-NP		405 019 1909	TR 2SC536-E-NP
	405 020 7501	TR 2SC945A-PA		405 019 2708	TR 2SC536-F-NP
	405 020 7709	TR 2SC945A-QA		405 019 3804	TR 2SC536-G-NP
	405 020 7907	TR 2SC945A-RA		405 020 7501	TR 2SC945A-PA
	405 011 7305	TR 2SC1740-Q		405 020 7709	TR 2SC945A-QA
	405 011 7404	TR 2SC1740-R		405 020 7907	TR 2SC945A-RA
	405 011 7503	TR 2SC1740-S		406 000 6804	TR 2SA1015-GR(SAN)
	405 012 2002	TR 2SC1815-GR		405 001 7407	TR 2SA1015-O(SAN)
	405 012 2101	TR 2SC1815-O		405 001 7605	TR 2SA1015-Y(SAN)
Q482	405 012 2309	TR 2SC1815-Y	Q504	405 004 3109	TR 2SA564A-Q(CU)
	405 019 1909	TR 2SC536-E-NP		405 004 3208	TR 2SA564A-R(CU)
	405 019 2708	TR 2SC536-F-NP		405 004 4205	TR 2SA608-E-CTV-NP
	405 019 3804	TR 2SC536-G-NP		405 004 4809	TR 2SA608-F-CTV-NP
	405 020 7501	TR 2SC945A-PA		405 006 1103	TR 2SA933-Q
	405 020 7709	TR 2SC945A-QA		405 006 1202	TR 2SA933-R
	405 020 7907	TR 2SC945A-RA		406 000 6804	TR 2SA1015-GR(SAN)
	405 011 7305	TR 2SC1740-Q		405 001 7407	TR 2SA1015-O(SAN)
	405 011 7404	TR 2SC1740-R		405 001 7605	TR 2SA1015-Y(SAN)
	405 011 7503	TR 2SC1740-S		405 004 3109	TR 2SA564A-Q(CU)
Q483	405 012 2002	TR 2SC1815-GR	Q505	405 004 3208	TR 2SA564A-R(CU)
	405 012 2101	TR 2SC1815-O		405 004 4205	TR 2SA608-E-CTV-NP
	405 012 2309	TR 2SC1815-Y		405 004 4809	TR 2SA608-F-CTV-NP
	405 019 1909	TR 2SC536-E-NP		405 006 1103	TR 2SA933-Q
	405 019 2708	TR 2SC536-F-NP		405 006 1202	TR 2SA933-R
	405 019 3804	TR 2SC536-G-NP		405 011 7305	TR 2SC1740-Q
	405 020 7501	TR 2SC945A-PA		405 011 7404	TR 2SC1740-R
	405 020 7709	TR 2SC945A-QA		405 011 7503	TR 2SC1740-S
	405 020 7907	TR 2SC945A-RA		405 012 2002	TR 2SC1815-GR
	405 011 7305	TR 2SC1740-Q		405 012 2101	TR 2SC1815-O
Q484	405 011 7404	TR 2SC1740-R	Q551	405 012 2309	TR 2SC1815-Y
	405 011 7503	TR 2SC1740-S		405 019 1909	TR 2SC536-E-NP
	405 012 2002	TR 2SC1815-GR		405 019 2708	TR 2SC536-F-NP
	405 012 2101	TR 2SC1815-O		405 019 3804	TR 2SC536-G-NP
	405 012 2309	TR 2SC1815-Y		405 020 7501	TR 2SC945A-PA
	405 019 1909	TR 2SC536-E-NP		405 020 7709	TR 2SC945A-QA
	405 019 2708	TR 2SC536-F-NP		405 020 7907	TR 2SC945A-RA
	405 019 3804	TR 2SC536-G-NP		405 011 7305	TR 2SC1740-Q
	405 020 7501	TR 2SC945A-PA		405 011 7404	TR 2SC1740-R
	405 020 7709	TR 2SC945A-QA	Q561	405 011 7503	TR 2SC1740-S
	405 020 7907	TR 2SC945A-RA		405 012 2002	TR 2SC1815-GR
	405 011 7305	TR 2SC1740-Q		405 012 2101	TR 2SC1815-O
	405 011 7404	TR 2SC1740-R		405 012 2309	TR 2SC1815-Y
	405 011 7503	TR 2SC1740-S		405 019 1909	TR 2SC536-E-NP
	405 012 2002	TR 2SC1815-GR		405 019 2708	TR 2SC536-F-NP
	405 012 2101	TR 2SC1815-O		405 019 3804	TR 2SC536-G-NP
	405 012 2309	TR 2SC1815-Y		405 020 7501	TR 2SC945A-PA
	405 019 1909	TR 2SC536-E-NP		405 020 7709	TR 2SC945A-QA
	405 019 2708	TR 2SC536-F-NP		405 020 7907	TR 2SC945A-RA
	405 019 3804	TR 2SC536-G-NP		405 011 7305	TR 2SC1740-Q

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
Q571	405 011 7404	TR 2SC1740-R	C210	403 086 2300	NP-ELECT 1U M 50V
	405 011 7503	TR 2SC1740-S	C211	403 049 9803	ELECT 2.2U M 50V
	405 012 2002	TR 2SC1815-GR	C212	403 057 0403	POLYESTER 0.01U K 50V
	405 012 2101	TR 2SC1815-O		403 057 1004	POLYESTER 0.01U K 50V
	405 012 2309	TR 2SC1815-Y	C213	403 049 9803	ELECT 2.2U M 50V
	405 019 1909	TR 2SC536-E-NP	C214	403 057 0403	POLYESTER 0.01U K 50V
	405 019 3804	TR 2SC536-G-NP		403 057 1004	POLYESTER 0.01U K 50V
	405 020 7501	TR 2SC945A-PA	C215	403 049 9803	ELECT 2.2U M 50V
	405 020 7709	TR 2SC945A-QA	C216	403 057 0403	POLYESTER 0.01U K 50V
	405 020 7907	TR 2SC945A-RA		403 057 1004	POLYESTER 0.01U K 50V
	405 011 7305	TR 2SC1740-Q	C219	403 071 1707	CERAMIC 180P K 50V
	405 011 7404	TR 2SC1740-R	C220	403 049 0008	ELECT 1U M 50V
	405 011 7503	TR 2SC1740-S	C221	403 049 0008	ELECT 1U M 50V
	405 012 2002	TR 2SC1815-GR	C222	403 049 0008	ELECT 1U M 50V
	405 012 2101	TR 2SC1815-O	C223	403 049 0008	ELECT 1U M 50V
	405 012 2309	TR 2SC1815-Y	C224	403 057 0403	POLYESTER 0.01U K 50V
	405 019 1909	TR 2SC536-E-NP		403 057 1004	POLYESTER 0.01U K 50V
	405 019 2708	TR 2SC536-F-NP	C225	403 057 0403	POLYESTER 0.01U K 50V
	405 019 3804	TR 2SC536-G-NP		403 057 1004	POLYESTER 0.01U K 50V
	405 020 7501	TR 2SC945A-PA	C226	403 057 0403	POLYESTER 0.01U K 50V
	405 020 7709	TR 2SC945A-QA		403 057 1004	POLYESTER 0.01U K 50V
	405 020 7907	TR 2SC945A-RA	C227	403 057 0403	POLYESTER 0.01U K 50V
INTEGRATED CIRCUIT				403 057 1004	POLYESTER 0.01U K 50V
IC201	409 247 5302	IC M51406FP	C228	403 166 6808	MT-POLYEST 0.1U J 63V
IC202	409 018 3209	IC LA6082D		403 067 5603	MT-COMPO 0.1U J 50V
IC203	409 018 3209	IC LA6082D	C230	403 008 5501	CERAMIC 10P D 50V
IC2301	409 204 6700	IC MB40568	C2304	403 043 9106	ELECT 47U M 16V
IC2302	409 204 6700	IC MB40568	C2305	403 166 6808	MT-POLYEST 0.1U J 63V
IC2303	409 204 6700	IC MB40568		403 067 5603	MT-COMPO 0.1U J 50V
IC2304	409 251 1406	IC UPD42102G-3	C2306	403 041 8804	ELECT 10U M 16V
IC2305	409 251 1406	IC UPD42102G-3	C2307	403 049 0008	ELECT 1U M 50V
IC2306	409 251 1406	IC UPD42102G-3	C2308	403 043 9106	ELECT 47U M 16V
IC2307	409 247 5203	IC LC9123A-511	C2309	403 166 6808	MT-POLYEST 0.1U J 63V
IC2308	409 247 5203	IC LC9123A-511		403 067 5603	MT-COMPO 0.1U J 50V
IC2309	409 247 5203	IC LC9123A-511	C231	403 043 9106	ELECT 47U M 16V
IC2310	409 251 1406	IC UPD42102G-3	C2310	403 043 9106	ELECT 47U M 16V
IC2311	409 251 1406	IC UPD42102G-3	C2312	403 166 6808	MT-POLYEST 0.1U J 63V
IC2312	409 251 1406	IC UPD42102G-3		403 067 5603	MT-COMPO 0.1U J 50V
IC2313	409 215 9707	IC MB40978	C2313	403 043 9106	ELECT 47U M 16V
IC2314	409 087 1502	IC LC74HC244	C2314	403 166 6808	MT-POLYEST 0.1U J 63V
	409 031 7109	IC MC74HC244N		403 067 5603	MT-COMPO 0.1U J 50V
	409 052 5603	IC TC74HC244P	C2315	403 043 9106	ELECT 47U M 16V
IC301	409 240 7303	IC CXA1216P	C2316	403 166 6808	MT-POLYEST 0.1U J 63V
IC302	409 157 7403	IC AN614		403 067 5603	MT-COMPO 0.1U J 50V
IC303	409 073 1707	IC AN5862K	C2318	403 166 6808	MT-POLYEST 0.1U J 63V
IC402	409 219 8102	IC L7815-RA		403 067 5603	MT-COMPO 0.1U J 50V
IC403	409 141 0502	IC TA79L008P	C2319	403 020 8207	CERAMIC 3P C 50V
IC404	409 026 9101	IC L78M09-RA	C232	403 166 6808	MT-POLYEST 0.1U J 63V
IC421	410 115 8301	IC LC92032A-507		403 067 5603	MT-COMPO 0.1U J 50V
IC423	409 022 0805	IC LC74HC04	C2324	403 043 9106	ELECT 47U M 16V
	409 031 5600	IC MC74HC04N	C2325	403 166 6808	MT-POLYEST 0.1U J 63V
IC480	409 043 1904	IC SN74LS221N		403 067 5603	MT-COMPO 0.1U J 50V
IC501	409 018 3209	IC LA6082D	C2326	403 041 8804	ELECT 10U M 16V
CAPACITOR			C2327	403 049 0008	ELECT 1U M 50V
C201	403 057 0403	POLYESTER 0.01U K 50V	C2328	403 043 9106	ELECT 47U M 16V
	403 057 1004	POLYESTER 0.01U K 50V	C2329	403 166 6808	MT-POLYEST 0.1U J 63V
C202	403 086 2300	NP-ELECT 1U M 50V		403 067 5603	MT-COMPO 0.1U J 50V
C203	403 057 0403	POLYESTER 0.01U K 50V	C233	403 166 6808	MT-POLYEST 0.1U J 63V
	403 057 1004	POLYESTER 0.01U K 50V		403 067 5603	MT-COMPO 0.1U J 50V
C204	403 086 2300	NP-ELECT 1U M 50V	C2330	403 043 9106	ELECT 47U M 16V
C205	403 086 2300	NP-ELECT 1U M 50V	C2332	403 166 6808	MT-POLYEST 0.1U J 63V
C206	403 057 0403	POLYESTER 0.01U K 50V		403 067 5603	MT-COMPO 0.1U J 50V
	403 057 1004	POLYESTER 0.01U K 50V	C2333	403 043 9106	ELECT 47U M 16V
C207	403 057 0403	POLYESTER 0.01U K 50V	C2334	403 166 6808	MT-POLYEST 0.1U J 63V
	403 057 1004	POLYESTER 0.01U K 50V		403 067 5603	MT-COMPO 0.1U J 50V
C208	403 050 6600	ELECT 3.3U M 50V	C2335	403 043 9106	ELECT 47U M 16V
C209	403 056 7908	POLYESTER 1000P K 50V	C2336	403 166 6808	MT-POLYEST 0.1U J 63V
	403 056 8707	POLYESTER 1000P K 50V		403 067 5603	MT-COMPO 0.1U J 50V
			C2338	403 166 6808	MT-POLYEST 0.1U J 63V
				403 067 5603	MT-COMPO 0.1U J 50V

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
C2339	403 020 8207	CERAMIC 3P C 50V	C254	403 044 6609	ELECT 10U M 25V
C234	403 166 7706	MT-POLYEST 0.47U J 63V	C264	403 044 6609	ELECT 10U M 25V
	403 067 7805	MT-COMPO 0.47U J 50V	C274	403 044 6609	ELECT 10U M 25V
C2342	403 043 9106	ELECT 47U M 16V	C287	403 059 3600	POLYESTER 2200P K 50V
C2343	403 166 6808	MT-POLYEST 0.1U J 63V		403 059 4201	POLYESTER 2200P K 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C288	403 059 3600	POLYESTER 2200P K 50V
C2344	403 043 9106	ELECT 47U M 16V		403 059 4201	POLYESTER 2200P K 50V
C2345	403 166 6808	MT-POLYEST 0.1U J 63V	C289	403 059 3600	POLYESTER 2200P K 50V
	403 067 5603	MT-COMPO 0.1U J 50V		403 059 4201	POLYESTER 2200P K 50V
C2346	403 041 8804	ELECT 10U M 16V	C301	403 042 2405	ELECT 100U M 16V
C2347	403 049 0008	ELECT 1U M 50V	C302	403 069 8305	CERAMIC 0.01U Z 50V
C2348	403 043 9106	ELECT 47U M 16V	C303	403 043 9106	ELECT 47U M 16V
C2349	403 166 6808	MT-POLYEST 0.1U J 63V	C304	403 043 9106	ELECT 47U M 16V
	403 067 5603	MT-COMPO 0.1U J 50V	C305	403 043 9106	ELECT 47U M 16V
C235	403 047 3100	ELECT 47U M 25V	C306	403 043 9106	ELECT 47U M 16V
C2350	403 043 9106	ELECT 47U M 16V	C308	403 042 2405	ELECT 100U M 16V
C2352	403 166 6808	MT-POLYEST 0.1U J 63V	C309	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C312	403 069 8305	CERAMIC 0.01U Z 50V
C2353	403 043 9106	ELECT 47U M 16V	C313	403 069 8305	CERAMIC 0.01U Z 50V
C2354	403 166 6808	MT-POLYEST 0.1U J 63V	C314	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C315	403 069 8305	CERAMIC 0.01U Z 50V
C2355	403 043 9106	ELECT 47U M 16V	C316	403 043 9106	ELECT 47U M 16V
C2356	403 166 6808	MT-POLYEST 0.1U J 63V	C317	403 043 9106	ELECT 47U M 16V
	403 067 5603	MT-COMPO 0.1U J 50V	C357	403 071 5606	CERAMIC 220P K 50V
C2358	403 166 6808	MT-POLYEST 0.1U J 63V	C361	403 166 8109	MT-POLYEST 0.22U J 63V
	403 067 5603	MT-COMPO 0.1U J 50V		403 067 6709	MT-COMPO 0.22U J 50V
C2359	403 020 8207	CERAMIC 3P C 50V	C362	403 166 8109	MT-POLYEST 0.22U J 63V
C236	403 166 6808	MT-POLYEST 0.1U J 63V		403 067 6709	MT-COMPO 0.22U J 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C363	403 166 8109	MT-POLYEST 0.22U J 63V
C2362	403 043 9106	ELECT 47U M 16V		403 067 6709	MT-COMPO 0.22U J 50V
C2363	403 166 6808	MT-POLYEST 0.1U J 63V	C364	403 041 8804	ELECT 10U M 16V
	403 067 5603	MT-COMPO 0.1U J 50V	C365	403 009 3407	CERAMIC 100P J 50V
C237	403 166 6808	MT-POLYEST 0.1U J 63V	C366	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C368	403 008 5501	CERAMIC 10P D 50V
C2371	403 043 9106	ELECT 47U M 16V	C369	403 042 7707	ELECT 22U M 16V
C2372	403 166 6808	MT-POLYEST 0.1U J 63V	C370	403 048 6308	ELECT 0.47U M 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C371	403 048 6308	ELECT 0.47U M 50V
C2373	403 043 9106	ELECT 47U M 16V	C372	403 048 6308	ELECT 0.47U M 50V
C2374	403 166 6808	MT-POLYEST 0.1U J 63V	C373	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C374	403 069 8305	CERAMIC 0.01U Z 50V
C2375	403 043 9106	ELECT 47U M 16V	C375	403 069 8305	CERAMIC 0.01U Z 50V
C2376	403 166 6808	MT-POLYEST 0.1U J 63V	C376	403 049 0008	ELECT 1U M 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C377	403 049 0008	ELECT 1U M 50V
C2377	403 049 0008	ELECT 1U M 50V	C378	403 042 2405	ELECT 100U M 16V
C2378	403 043 9106	ELECT 47U M 16V	C379	403 069 8305	CERAMIC 0.01U Z 50V
C2379	403 166 6808	MT-POLYEST 0.1U J 63V	C380	403 042 2405	ELECT 100U M 16V
	403 067 5603	MT-COMPO 0.1U J 50V	C381	403 069 8305	CERAMIC 0.01U Z 50V
C238	403 043 9106	ELECT 47U M 16V	C382	403 028 1705	CERAMIC 56P J 50V
C239	403 166 6808	MT-POLYEST 0.1U J 63V	C402	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C405	403 046 5907	ELECT 330U M 25V
C240	403 166 7706	MT-POLYEST 0.47U J 63V	C406	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 7805	MT-COMPO 0.47U J 50V	C407	403 052 7308	ELECT 100U M 35V
C241	403 166 6808	MT-POLYEST 0.1U J 63V	C408	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 5603	MT-COMPO 0.1U J 50V	C409	403 042 2405	ELECT 100U M 16V
C242	403 166 7706	MT-POLYEST 0.47U J 63V	C410	403 069 8305	CERAMIC 0.01U Z 50V
	403 067 7805	MT-COMPO 0.47U J 50V	C411	403 040 3701	ELECT 220U M 10V
C243	403 008 5501	CERAMIC 10P D 50V	C412	403 069 8305	CERAMIC 0.01U Z 50V
C244	403 166 6808	MT-POLYEST 0.1U J 63V	C413	403 044 1703	ELECT 470U M 16V
	403 067 5603	MT-COMPO 0.1U J 50V	C414	403 069 8305	CERAMIC 0.01U Z 50V
C245	403 047 3100	ELECT 47U M 25V	C415	403 043 9106	ELECT 47U M 16V
C246	403 008 5501	CERAMIC 10P D 50V	C416	403 069 8305	CERAMIC 0.01U Z 50V
C247	403 057 0403	POLYESTER 0.01U K 50V	C421	403 046 3903	ELECT 33U M 25V
	403 057 1004	POLYESTER 0.01U K 50V	C427	403 125 4906	NP-ELECT 0.47U M 50V
C248	403 043 9106	ELECT 47U M 16V	C428	403 061 2202	POLYESTER 3900P K 50V
C249	403 057 0403	POLYESTER 0.01U K 50V		403 061 2707	POLYESTER 3900P K 50V
	403 057 1004	POLYESTER 0.01U K 50V	C430	403 020 8207	CERAMIC 3P C 50V
C250	403 043 9106	ELECT 47U M 16V	C431	403 060 6102	POLYESTER 3300P K 50V
C252	403 049 9803	ELECT 2.2U M 50V		403 060 6706	POLYESTER 3300P K 50V
C253	403 057 0403	POLYESTER 0.01U K 50V	C432	403 086 2300	NP-ELECT 1U M 50V
	403 057 1004	POLYESTER 0.01U K 50V	C433	403 063 0008	POLYESTER 6800P K 50V

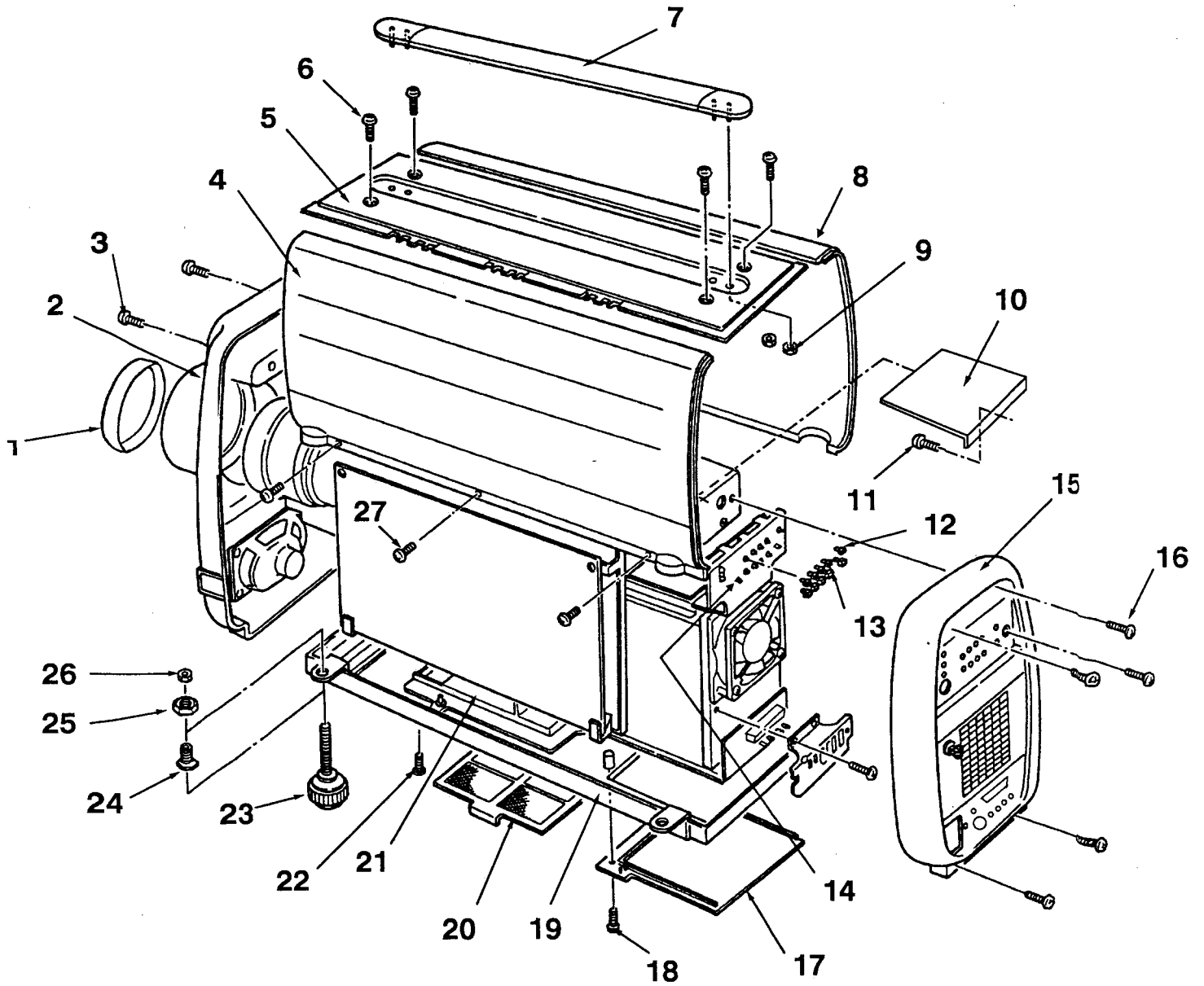
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C434	403 063 0602	POLYESTER 6800P K 50V	C573	403 067 5603	MT-COMPO 0.1U J 50V
	403 059 3600	POLYESTER 2200P K 50V		403 049 0008	ELECT 1U M 50V
	403 059 4201	POLYESTER 2200P K 50V		403 049 9803	ELECT 2.2U M 50V
C435	403 069 8305	CERAMIC 0.01U Z 50V		403 042 7707	ELECT 22U M 16V
C436	403 019 7907	CERAMIC 27P J 50V	C582	403 069 8305	CERAMIC 0.01U Z 50V
C437	403 012 4606	CERAMIC 15P J 50V	RESISTER		
C438	403 043 9106	ELECT 47U M 16V	R201	401 026 4605	CARBON 33K JA 1/6W
C439	403 166 6808	MT-POLYEST 0.1U J 63V	R202	401 025 8208	CARBON 22K JA 1/6W
C440	403 067 5603	MT-COMPO 0.1U J 50V	R203	401 026 1000	CARBON 2.7K JA 1/6W
	403 057 5903	POLYESTER 1200P K 50V	R204	401 024 7707	CARBON 100K JA 1/6W
C441	403 057 6405	POLYESTER 1200P K 50V	R205	401 025 7409	CARBON 220 JA 1/6W
	403 086 2300	NP-ELECT 1U M 50V	R208	401 026 4605	CARBON 33K JA 1/6W
C442	403 166 6808	MT-POLYEST 0.1U J 63V	R209	401 087 6204	CARBON 0.000 ZA 1/6W
C443	403 067 5603	MT-COMPO 0.1U J 50V	R212	401 087 6204	CARBON 0.000 ZA 1/6W
	403 043 9106	ELECT 47U M 16V	R213	401 087 6204	CARBON 0.000 ZA 1/6W
C444	403 010 6404	CERAMIC 12P J 50V	R214	401 087 6204	CARBON 0.000 ZA 1/6W
C445	403 017 8005	CERAMIC 22P J 50V	R216	401 024 6403	CARBON 10 JA 1/6W
C446	403 069 8305	CERAMIC 0.01U Z 50V	R217	401 026 7408	CARBON 39K JA 1/6W
C447	403 059 5901	POLYESTER 0.022U K 50V	R218	401 024 9701	CARBON 12K JA 1/6W
C448	403 059 6700	POLYESTER 0.022U K 50V	R219	401 024 7400	CARBON 10K JA 1/6W
	403 063 0008	POLYESTER 6800P K 50V	R220	401 024 7707	CARBON 100K JA 1/6W
C449	403 063 0602	POLYESTER 6800P K 50V	R223	401 027 5908	CARBON 68K JA 1/6W
C449	403 086 2300	NP-ELECT 1U M 50V	R224	401 026 4605	CARBON 33K JA 1/6W
C450	403 043 9106	ELECT 47U M 16V	R225	401 026 7408	CARBON 39K JA 1/6W
C451	403 166 6808	MT-POLYEST 0.1U J 63V	R226	401 087 6204	CARBON 0.000 ZA 1/6W
C452	403 067 5603	MT-COMPO 0.1U J 50V	R2301	401 024 7004	CARBON 1K JA 1/6W
	403 166 6808	MT-POLYEST 0.1U J 63V	R2302	401 024 7004	CARBON 1K JA 1/6W
C453	403 067 5603	MT-COMPO 0.1U J 50V	R2307	401 087 6204	CARBON 0.000 ZA 1/6W
	403 057 0403	POLYESTER 0.01U K 50V	R2309	401 087 6204	CARBON 0.000 ZA 1/6W
C454	403 057 1004	POLYESTER 0.01U K 50V	R231	401 027 0309	CARBON 47K JA 1/6W
	403 019 7907	CERAMIC 27P J 50V	R2310	401 024 7004	CARBON 1K JA 1/6W
C455	403 012 4606	CERAMIC 15P J 50V	R2311	401 024 7004	CARBON 1K JA 1/6W
C456	403 166 6808	MT-POLYEST 0.1U J 63V	R2312	401 024 7004	CARBON 1K JA 1/6W
C457	403 067 5603	MT-COMPO 0.1U J 50V	R2313	401 027 5205	CARBON 680 JA 1/6W
	403 043 9106	ELECT 47U M 16V	R2314	401 027 5502	CARBON 6.8K JA 1/6W
C458	403 056 7908	POLYESTER 1000P K 50V	R2315	401 025 4200	CARBON 1.8K JA 1/6W
C460	403 056 8707	POLYESTER 1000P K 50V	R2317	401 024 7004	CARBON 1K JA 1/6W
	403 069 8305	CERAMIC 0.01U Z 50V	R232	401 025 2305	CARBON 150K JA 1/6W
C463	403 069 8305	CERAMIC 0.01U Z 50V	R2321	401 024 7004	CARBON 1K JA 1/6W
C471	403 166 6808	MT-POLYEST 0.1U J 63V	R2322	401 024 7004	CARBON 1K JA 1/6W
C473	403 067 5603	MT-COMPO 0.1U J 50V	R2327	401 087 6204	CARBON 0.000 ZA 1/6W
	403 017 8005	CERAMIC 22P J 50V	R2329	401 087 6204	CARBON 0.000 ZA 1/6W
C474	403 017 8005	CERAMIC 22P J 50V	R233	401 024 9701	CARBON 12K JA 1/6W
C481	403 059 5000	POLYESTER 0.022U J 50V	R2330	401 024 7004	CARBON 1K JA 1/6W
C482	403 059 5703	POLYESTER 0.022U J 50V	R2331	401 024 7004	CARBON 1K JA 1/6W
	403 059 5000	POLYESTER 0.022U J 50V	R2332	401 024 7004	CARBON 1K JA 1/6W
C501	403 059 5703	POLYESTER 0.022U J 50V	R2333	401 027 5205	CARBON 680 JA 1/6W
	403 085 6705	NP-ELECT 47U M 16V	R2334	401 027 5502	CARBON 6.8K JA 1/6W
C502	403 049 9803	ELECT 2.2U M 50V	R2335	401 025 4200	CARBON 1.8K JA 1/6W
C503	403 166 6808	MT-POLYEST 0.1U J 63V	R2337	401 024 7004	CARBON 1K JA 1/6W
C504	403 067 5603	MT-COMPO 0.1U J 50V	R234	401 024 9701	CARBON 12K JA 1/6W
	403 049 9803	ELECT 2.2U M 50V	R2341	401 024 7004	CARBON 1K JA 1/6W
C505	403 166 6808	MT-POLYEST 0.1U J 63V	R2342	401 024 7004	CARBON 1K JA 1/6W
C506	403 067 5603	MT-COMPO 0.1U J 50V	R2347	401 087 6204	CARBON 0.000 ZA 1/6W
	403 044 6609	ELECT 10U M 25V	R2349	401 087 6204	CARBON 0.000 ZA 1/6W
C507	403 166 6808	MT-POLYEST 0.1U J 63V	R235	401 025 2305	CARBON 150K JA 1/6W
C508	403 067 5603	MT-COMPO 0.1U J 50V	R2350	401 024 7004	CARBON 1K JA 1/6W
	403 166 6808	MT-POLYEST 0.1U J 63V	R2351	401 024 7004	CARBON 1K JA 1/6W
C510	403 067 5603	MT-COMPO 0.1U J 50V	R2352	401 024 7004	CARBON 1K JA 1/6W
	403 166 6808	MT-POLYEST 0.1U J 63V	R2353	401 027 5205	CARBON 680 JA 1/6W
C551	403 067 5603	MT-COMPO 0.1U J 50V	R2354	401 027 5502	CARBON 6.8K JA 1/6W
	403 166 6808	MT-POLYEST 0.1U J 63V	R2355	401 025 4200	CARBON 1.8K JA 1/6W
C553	403 049 0008	ELECT 1U M 50V	R2357	401 024 7004	CARBON 1K JA 1/6W
C554	403 049 9803	ELECT 2.2U M 50V	R236	401 025 2305	CARBON 150K JA 1/6W
C561	403 166 6808	MT-POLYEST 0.1U J 63V	R237	401 024 9701	CARBON 12K JA 1/6W
C563	403 067 5603	MT-COMPO 0.1U J 50V	R238	401 024 9701	CARBON 12K JA 1/6W
	403 049 0008	ELECT 1U M 50V	R239	401 024 9701	CARBON 12K JA 1/6W
C564	403 049 9803	ELECT 2.2U M 50V	R240	401 024 9701	CARBON 12K JA 1/6W
C571	403 166 6808	MT-POLYEST 0.1U J 63V	R241	401 025 2305	CARBON 150K JA 1/6W

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
R242	401 025 2305	CARBON 150K JA 1/6W	R334	401 024 7004	CARBON 1K JA 1/6W
R243	401 025 2305	CARBON 150K JA 1/6W	R335	401 024 7004	CARBON 1K JA 1/6W
R250	401 087 6204	CARBON 0.000 ZA 1/6W	R336	401 025 1902	CARBON 15K JA 1/6W
R252	401 027 3003	CARBON 56K JA 1/6W	R337	401 025 1902	CARBON 15K JA 1/6W
R253	401 027 3003	CARBON 56K JA 1/6W	R338	401 027 5205	CARBON 680 JA 1/6W
R254	401 025 7805	CARBON 2.2K JA 1/6W	R339	401 027 5205	CARBON 680 JA 1/6W
R255	401 012 4503	CARBON 100 JA 1/4W	R340	401 025 1605	CARBON 1.5K JA 1/6W
R256	401 012 3407	CARBON 10 JA 1/4W	R341	401 024 7004	CARBON 1K JA 1/6W
R257	401 025 7805	CARBON 2.2K JA 1/6W	R350	401 024 7400	CARBON 10K JA 1/6W
R258	401 012 3407	CARBON 10 JA 1/4W	R351	401 024 7400	CARBON 10K JA 1/6W
R259	401 012 4503	CARBON 100 JA 1/4W	R352	401 024 7004	CARBON 1K JA 1/6W
R260	401 087 6204	CARBON 0.000 ZA 1/6W	R353	401 024 7400	CARBON 10K JA 1/6W
R262	401 027 3003	CARBON 56K JA 1/6W	R354	401 025 7805	CARBON 2.2K JA 1/6W
R263	401 027 3003	CARBON 56K JA 1/6W	R355	401 026 9600	CARBON 470 JA 1/6W
R264	401 025 7805	CARBON 2.2K JA 1/6W	R361	401 024 7004	CARBON 1K JA 1/6W
R265	401 012 4503	CARBON 100 JA 1/4W	R362	401 024 7400	CARBON 10K JA 1/6W
R266	401 012 3407	CARBON 10 JA 1/4W	R363	401 025 7805	CARBON 2.2K JA 1/6W
R267	401 025 7805	CARBON 2.2K JA 1/6W	R364	401 026 4902	CARBON 330K JA 1/6W
R268	401 012 3407	CARBON 10 JA 1/4W	R365	401 027 2303	CARBON 560 JA 1/6W
R269	401 012 4503	CARBON 100 JA 1/4W	R367	401 027 6103	CARBON 680K JA 1/6W
R270	401 087 6204	CARBON 0.000 ZA 1/6W	R368	401 026 9303	CARBON 47 JA 1/6W
R272	401 027 3003	CARBON 56K JA 1/6W	R369	401 026 9303	CARBON 47 JA 1/6W
R273	401 027 3003	CARBON 56K JA 1/6W	R370	401 026 9303	CARBON 47 JA 1/6W
R274	401 025 7805	CARBON 2.2K JA 1/6W	R371	401 026 1000	CARBON 2.7K JA 1/6W
R275	401 012 4503	CARBON 100 JA 1/4W	R372	401 027 5502	CARBON 6.8K JA 1/6W
R276	401 012 3407	CARBON 10 JA 1/4W	R374	401 024 7400	CARBON 10K JA 1/6W
R277	401 025 7805	CARBON 2.2K JA 1/6W	R375	401 024 7400	CARBON 10K JA 1/6W
R278	401 012 3407	CARBON 10 JA 1/4W	R381	401 026 1000	CARBON 2.7K JA 1/6W
R279	401 012 4503	CARBON 100 JA 1/4W	R382	401 024 9305	CARBON 1.2K JA 1/6W
R281	401 012 3407	CARBON 10 JA 1/4W	R383	401 027 8602	CARBON 8.2K JA 1/6W
R282	401 012 3407	CARBON 10 JA 1/4W	R384	401 026 4308	CARBON 3.3K JA 1/6W
R283	401 024 6700	CARBON 100 JA 1/6W	R385	401 027 2600	CARBON 5.6K JA 1/6W
R284	401 012 3407	CARBON 10 JA 1/4W	R386	401 027 8602	CARBON 8.2K JA 1/6W
R285	401 012 3407	CARBON 10 JA 1/4W	R387	401 027 2600	CARBON 5.6K JA 1/6W
R286	401 024 6700	CARBON 100 JA 1/6W	R388	401 027 8602	CARBON 8.2K JA 1/6W
R287	401 012 3407	CARBON 10 JA 1/4W	R389	401 026 4308	CARBON 3.3K JA 1/6W
R288	401 012 3407	CARBON 10 JA 1/4W	R390	401 026 4308	CARBON 3.3K JA 1/6W
R289	401 024 6700	CARBON 100 JA 1/6W	R391	401 026 4308	CARBON 3.3K JA 1/6W
R301	401 026 9303	CARBON 47 JA 1/6W	R393	401 024 7400	CARBON 10K JA 1/6W
R302	401 025 1902	CARBON 15K JA 1/6W	R394	401 024 7400	CARBON 10K JA 1/6W
R303	401 025 7409	CARBON 220 JA 1/6W	R395	401 024 7400	CARBON 10K JA 1/6W
R304	401 026 9600	CARBON 470 JA 1/6W	R397	401 025 1605	CARBON 1.5K JA 1/6W
R306	401 027 8305	CARBON 820 JA 1/6W	R398	401 025 1605	CARBON 1.5K JA 1/6W
R307	401 026 9303	CARBON 47 JA 1/6W	R399	401 025 1605	CARBON 1.5K JA 1/6W
R308	401 024 7004	CARBON 1K JA 1/6W	R401	401 062 0302	OXIDE-MT 47 JA 1W
R309	401 024 7004	CARBON 1K JA 1/6W	R403	401 063 0103	OXIDE-MT 68 JA 1W
R310	401 026 9303	CARBON 47 JA 1/6W	R406	401 024 7400	CARBON 10K JA 1/6W
R311	401 025 1902	CARBON 15K JA 1/6W	R407	401 025 4606	CARBON 18K JA 1/6W
R312	401 026 9303	CARBON 47 JA 1/6W	R421	401 026 7408	CARBON 39K JA 1/6W
R313	401 025 1902	CARBON 15K JA 1/6W	R422	401 024 7400	CARBON 10K JA 1/6W
R314	401 024 9305	CARBON 1.2K JA 1/6W	R424	401 026 9600	CARBON 470 JA 1/6W
R315	401 026 9600	CARBON 470 JA 1/6W	R425	401 087 6204	CARBON 0.000 ZA 1/6W
R316	401 024 7004	CARBON 1K JA 1/6W	R430	401 026 3905	CARBON 330 JA 1/6W
R317	401 024 7004	CARBON 1K JA 1/6W	R431	401 026 4902	CARBON 330K JA 1/6W
R318	401 026 9303	CARBON 47 JA 1/6W	R432	401 027 7209	CARBON 7.5K JA 1/6W
R319	401 026 6609	CARBON 390 JA 1/6W	R433	401 087 6204	CARBON 0.000 ZA 1/6W
R320	401 024 7004	CARBON 1K JA 1/6W	R435	401 027 5502	CARBON 6.8K JA 1/6W
R321	401 024 7004	CARBON 1K JA 1/6W	R437	401 087 6204	CARBON 0.000 ZA 1/6W
R322	401 026 9600	CARBON 470 JA 1/6W	R439	401 087 6204	CARBON 0.000 ZA 1/6W
R323	401 024 9701	CARBON 12K JA 1/6W	R441	401 087 6204	CARBON 0.000 ZA 1/6W
R324	401 027 5502	CARBON 6.8K JA 1/6W	R442	401 025 7805	CARBON 2.2K JA 1/6W
R325	401 027 5205	CARBON 680 JA 1/6W	R443	401 026 4308	CARBON 3.3K JA 1/6W
R326	401 024 7004	CARBON 1K JA 1/6W	R444	401 027 5502	CARBON 6.8K JA 1/6W
R327	401 024 7004	CARBON 1K JA 1/6W	R445	401 024 7004	CARBON 1K JA 1/6W
R328	401 024 7004	CARBON 1K JA 1/6W	R446	401 025 2305	CARBON 150K JA 1/6W
R329	401 024 9305	CARBON 1.2K JA 1/6W	R447	401 024 8803	CARBON 12 JA 1/6W
R330	401 025 1902	CARBON 15K JA 1/6W	R448	401 024 7707	CARBON 100K JA 1/6W
R331	401 025 1902	CARBON 15K JA 1/6W	R449	401 024 8803	CARBON 12 JA 1/6W
R332	401 027 5205	CARBON 680 JA 1/6W	R450	401 025 0608	CARBON 1.3K JA 1/6W
R333	401 024 7004	CARBON 1K JA 1/6W	R451	401 027 5502	CARBON 6.8K JA 1/6W

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
R452	401 027 5502	CARBON 6. 8K JA 1/6W	VR2301	610 019 4069	VR B-10K
R453	401 024 7004	CARBON 1K JA 1/6W	VR2302	610 019 4069	VR B-10K
R454	401 026 7606	CARBON 390K JA 1/6W	VR2303	610 019 4069	VR B-10K
R455	401 025 8703	CARBON 220K JA 1/6W	VR301	610 019 4038	VR B-2K
R456	401 024 7400	CARBON 10K JA 1/6W	VR481	610 019 4076	VR B-20K
R457	401 024 8803	CARBON 12 JA 1/6W	VR482	610 019 4076	VR B-20K
R458	401 024 7707	CARBON 100K JA 1/6W	VR503	610 019 4076	VR B-20K
R459	401 025 2305	CARBON 150K JA 1/6W	VR551	610 019 4038	VR B-2K
R460	401 024 7004	CARBON 1K JA 1/6W	VR561	610 019 4038	VR B-2K
R461	401 027 5502	CARBON 6. 8K JA 1/6W	VR571	610 019 4038	VR B-2K
R462	401 027 4307	CARBON 6. 2K JA 1/6W			
R463	401 027 0309	CARBON 47K JA 1/6W			
R464	401 027 7704	CARBON 750K JA 1/6W			
R465	401 027 6103	CARBON 680K JA 1/6W			
R466	401 024 8803	CARBON 12 JA 1/6W			
R467	401 024 7707	CARBON 100K JA 1/6W			
R469	401 087 6204	CARBON 0. 000 ZA 1/6W			
R471	401 025 8208	CARBON 22K JA 1/6W			
R472	401 024 7400	CARBON 10K JA 1/6W			
R473	401 026 3707	CARBON 33 JA 1/6W			
R475	401 087 6204	CARBON 0. 000 ZA 1/6W			
R476	401 026 3707	CARBON 33 JA 1/6W			
R481	401 024 7400	CARBON 10K JA 1/6W			
R482	401 025 7805	CARBON 2. 2K JA 1/6W			
R484	401 024 7400	CARBON 10K JA 1/6W			
R485	401 024 7400	CARBON 10K JA 1/6W			
R486	401 024 7004	CARBON 1K JA 1/6W			
R487	401 024 7004	CARBON 1K JA 1/6W			
R488	401 025 8208	CARBON 22K JA 1/6W			
R489	401 024 7400	CARBON 10K JA 1/6W			
R490	401 024 7400	CARBON 10K JA 1/6W			
R501	401 024 7400	CARBON 10K JA 1/6W			
R502	401 024 7400	CARBON 10K JA 1/6W			
R503	401 024 7004	CARBON 1K JA 1/6W			
R504	401 024 9305	CARBON 1. 2K JA 1/6W			
R505	401 024 7004	CARBON 1K JA 1/6W			
R506	401 087 6204	CARBON 0. 000 ZA 1/6W			
R507	401 026 1604	CARBON 270K JA 1/6W			
R508	401 025 1902	CARBON 15K JA 1/6W			
R509	401 026 7408	CARBON 39K JA 1/6W			
R510	401 024 6700	CARBON 100 JA 1/6W			
R511	401 026 4605	CARBON 33K JA 1/6W			
R512	401 027 9005	CARBON 82K JA 1/6W			
R513	401 026 4902	CARBON 330K JA 1/6W			
R514	401 024 8001	CARBON 1M JA 1/6W			
R515	401 087 6204	CARBON 0. 000 ZA 1/6W			
R524	401 026 9303	CARBON 47 JA 1/6W			
R551	401 026 9600	CARBON 470 JA 1/6W			
R552	401 027 2600	CARBON 5. 6K JA 1/6W			
R553	401 027 8305	CARBON 820 JA 1/6W			
R554	401 026 3905	CARBON 330 JA 1/6W			
R561	401 026 9600	CARBON 470 JA 1/6W			
R562	401 027 2600	CARBON 5. 6K JA 1/6W			
R563	401 027 8305	CARBON 820 JA 1/6W			
R564	401 026 3905	CARBON 330 JA 1/6W			
R571	401 026 9600	CARBON 470 JA 1/6W			
R572	401 027 2600	CARBON 5. 6K JA 1/6W			
R573	401 027 8305	CARBON 820 JA 1/6W			
R574	401 026 3905	CARBON 330 JA 1/6W			
VARIABLE RESISTER			TRANSFORMER		
VR201	610 019 4090	VR B-50K	T421	610 231 2751	S TRANS
VR202	610 019 4090	VR B-50K	T422	610 231 2768	S TRANS
VR203	610 019 4090	VR B-50K	T423	610 231 2751	S TRANS
VR205	610 019 4090	VR B-50K	COIL		
VR206	610 019 4090	VR B-50K	L2301	610 215 1374	LC BLOCK
VR207	610 019 4052	VR B-5K	L2302	610 215 1374	LC BLOCK
VR208	610 019 4052	VR B-5K	L2303	610 215 1374	LC BLOCK
VR209	610 019 4052	VR B-5K	L2304	401 087 6204	CARBON 0. 000 ZA 1/6W
VR210	610 019 4038	VR B-2K	L2311	401 087 6204	CARBON 0. 000 ZA 1/6W
			L2312	610 215 1374	LC BLOCK
			L2313	610 215 1374	LC BLOCK
			L2314	610 215 1374	LC BLOCK
			L281	401 087 6204	CARBON 0. 000 ZA 1/6W
			L301	610 030 1139	DELAY LINE
			L302	610 224 3864	DELAY LINE
			L351	401 087 6204	CARBON 0. 000 ZA 1/6W
			L361	401 087 6204	CARBON 0. 000 ZA 1/6W
			L371	401 087 6204	CARBON 0. 000 ZA 1/6W
			L401	401 087 6204	CARBON 0. 000 ZA 1/6W
			L402	401 087 6204	CARBON 0. 000 ZA 1/6W
			L403	401 087 6204	CARBON 0. 000 ZA 1/6W
			L404	401 087 6204	CARBON 0. 000 ZA 1/6W
			L460	401 087 6204	CARBON 0. 000 ZA 1/6W
			L581	610 031 3439	PEAKING COIL
			DIODE		
			D201	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D301	407 052 4602	ZENER DIODE HZ483
			D351	401 087 6204	CARBON 0. 000 ZA 1/6W
			D352	407 055 7907	ZENER DIODE RD3. 6EL
			D402	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D403	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D404	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D405	401 087 6204	CARBON 0. 000 ZA 1/6W
			D421	407 091 2102	VARACTOR DI SVC201SPA
			D422	407 091 2102	VARACTOR DI SVC201SPA
			D481	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D482	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D501	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D502	407 007 9904	DIODE GMA01
				407 012 4406	DIODE 1SS133
				407 012 5809	DIODE 1SS176
			D551	401 087 6204	CARBON 0. 000 ZA 1/6W

Ref. No.	Part No.	Description	Ref.No.	Part No.	Description
D552	401 087 6204	CARBON 0.000 ZA 1/6W	K1003	610 010 2989	RCA JACK 1P
D553	407 048 9901	ZENER DIODE EQA02-25A	K1004	610 010 3665	RCA JACK 1P
D554	407 005 9807	DIODE ERA81-004	K1005	610 010 2989	RCA JACK 1P
D555	407 007 9904	DIODE GMA01	K1006	610 010 2972	RCA JACK 1P
	407 012 4406	DIODE 1SS133	SW1001	610 011 3350	PUSH SWITCH
	407 012 5809	DIODE 1SS176	SW1002	610 011 3350	PUSH SWITCH
D561	401 087 6204	CARBON 0.000 ZA 1/6W	SW1003	610 208 5082	PUSH SWITCH
D562	401 087 6204	CARBON 0.000 ZA 1/6W	SW1004	610 208 5082	PUSH SWITCH
D563	407 048 9901	ZENER DIODE EQA02-25A	SW1005	610 208 5082	PUSH SWITCH
D564	407 005 9807	DIODE ERA81-004	SW1006	610 208 5082	PUSH SWITCH
D565	407 007 9904	DIODE GMA01	SW1007	610 011 3350	PUSH SWITCH
	407 012 4406	DIODE 1SS133	SW1009	610 208 5082	PUSH SWITCH
	407 012 5809	DIODE 1SS176	SW1014	610 208 5082	PUSH SWITCH
D571	401 087 6204	CARBON 0.000 ZA 1/6W	SW1015	610 208 5082	PUSH SWITCH
D572	401 087 6204	CARBON 0.000 ZA 1/6W	SW1016	610 011 1790	PUSH SWITCH
D573	407 048 9901	ZENER DIODE EQA02-25A		610 011 1806	PUSH SWITCH
D574	407 005 9807	DIODE ERA81-004	SW1017	610 011 1790	PUSH SWITCH
D575	407 007 9904	DIODE GMA01		610 011 1806	PUSH SWITCH
	407 012 4406	DIODE 1SS133			
	407 012 5809	DIODE 1SS176			
610 230 5432 COMPOUND PCB ASSY E4ZA UE2412			OUT OF PCB ASS'Y		
TRANSISTER			MISCELLANEUS		
Q1001	406 000 6804	TR 2SA1015-GR(SAN)	△A901	610 230 6705	BALLAST(E4ZA)
	405 001 7407	TR 2SA1015-O(SAN)	EL901	610 225 2774	LCD ALM0305-00
	405 001 7605	TR 2SA1015-Y(SAN)	EL902	610 225 2774	LCD ALM0305-00
	405 004 3109	TR 2SA564A-Q(CU)	EL903	610 225 2774	LCD ALM0305-00
	405 004 3208	TR 2SA564A-R(CU)	FN901	610 227 0594	MOTER FAN
	405 004 4205	TR 2SA608-E-CTV-NP	FN902	610 225 4488	MOTER FAN
	405 004 4809	TR 2SA608-F-CTV-NP	G901	610 230 6026	MIRROR G8AG(DICHOIC)
	405 006 1103	TR 2SA933-Q	G902	610 225 2972	MIRROR S5WC(DICHOIC)
	405 006 1707	TR 2SA933S-Q	G903	610 225 2989	MIRROR S5WC(DICHOIC)
	405 006 1806	TR 2SA933S-R	G904	610 230 6019	MIRROR G8AG(DICHOIC)
RESISTER			△LP901	610 224 9453	METAL HALIDE LAMP (S5WC)
R1001	401 024 7004	CARBON 1K JA 1/6W	L901	610 234 8002	PIPE CORE
R1002	401 024 7400	CARBON 10K JA 1/6W	KSPAS	610 009 7797	CONNECTOR
R1003	401 026 9907	CARBON 4.7K JA 1/6W	KSPAS1	610 009 5984	TERMINAL PLUG
R1004	401 024 9701	CARBON 12K JA 1/6W	KSPAS2	610 009 5984	TERMINAL PLUG
DIODE			KSPS	610 014 6549	2P MINI HOUSING-S
DB1001	407 137 8402	ZENER DIODE B202S-0119	K9KS	610 009 7797	CONNECTOR
D1001	407 116 6504	LED SLP-181B-51	K9KS1	610 009 5984	TERMINAL PLUG
D1001B	610 234 0914	CUSHION SPACER E4ZA	K9KS2	610 009 5984	TERMINAL PLUG
D1002	407 036 0309	LED SLP-938C-50	K9LS	610 009 7797	CONNECTOR
D1002A	610 227 3069	SPASOR	K9LS1	610 009 5984	TERMINAL PLUG
D1003	407 033 7608	LED SLP-438C-50	K9LS2	610 009 5984	TERMINAL PLUG
D1003A	610 227 3069	SPASOR	SP901	610 055 5471	SPEAKER
D1004	407 029 8909	LED SLP-238C-50		610 055 5464	SPEAKER
D1004A	610 227 3069	SPASOR	SW901	610 220 0010	SWITCH
D1005	407 048 7600	ZENER DIODE EQA02-13A		610 229 8505	SWITCH
D1006	407 005 4505	DIODE DS442X	△SW904	610 011 1677	PUSH SWITCH
	407 012 4406	DIODE 1SS133	△T901	610 230 0352	POWER TRANS
	407 012 5809	DIODE 1SS176	△W901	610 230 5555	AC CORD (PLC-100P)
	407 013 1206	DIODE 1S1555		610 231 5394	AC CORD (PLC-100PB)
	407 013 4207	DIODE 1S2076		610 231 5400	AC CORD (PLC-100PP)
	407 013 7109	DIODE 1S2473	W903	610 227 4738	CORD
MISCELLANEUS					
A1001	610 230 5821	BACK TERMINAL PCB ASSY E4			
A1002	610 230 5838	BACK CONTROL PCB ASSY E4Z			
A1003	610 230 5845	RC AMP L PCB ASSY E4ZA			
A1004	610 230 5852	RC AMP R PCB ASSY E4ZA			
A1901	610 048 4603	RC PREAMP 411-1E			
A1902	610 048 4603	RC PREAMP 411-1E			
EK1010	610 217 6292	SOCKET 21P			
K1001	610 010 8295	DIN SOCKET			
K1002	610 010 2996	RCA JACK 1P			

CABINET PARTS LIST



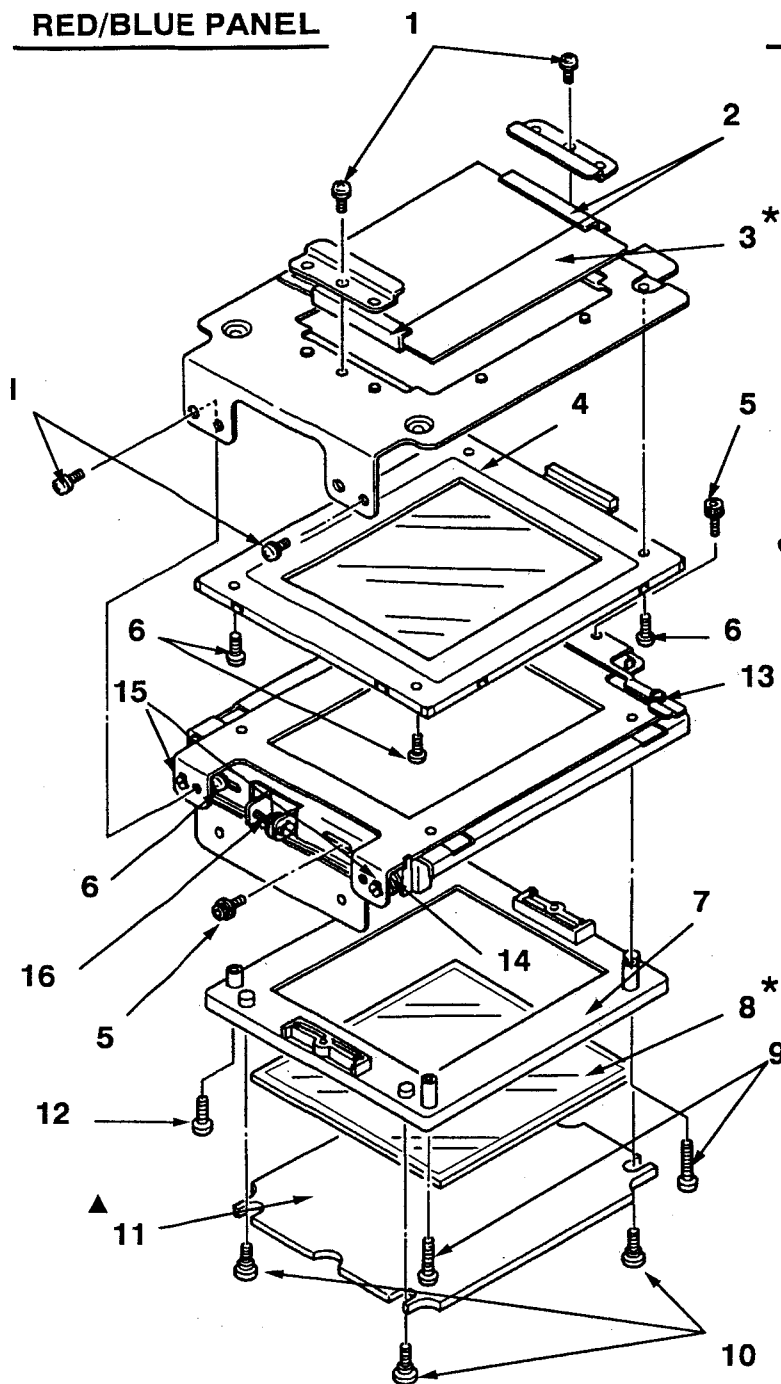
CABINET PARTS LIST

KEY NO.	PART NO.	DESCRIPTION
1.	610 225 3696	LENS CAP
2.	610 228 1743	FRONT CABINET
	610 223 9751	BRAND BADGE
	610 220 1123	TRANSPARENT BOARD (2 USED)
	610 218 4099	FILTER,RC PRE-AMP. (2 USED)
3.	411 077 1102	SCREW,4X10MM (4 USED)
4.	610 225 2149	SIDE CABINET (RIGHT)
5.	610 225 2125	TOP CABINET
6.	411 077 1102	SCREW,4X10MM (4 USED)
7.	610 225 4075	HANDLE ASSY
	610 225 2231	HANDLE MTG. BRACKET (2 USED)
	610 220 1154	HANDLE COVER (2 USED)
	610 220 1222	HANDLE SLIDE PLATE (4 USED)
8.	610 226 5743	SIDE CABINET (LEFT)
9.	412 036 2307	SPECIAL NUT (4 USED)
△ 10.	610 227 3472	INSULATION SHEET
11.	412 027 1401	SCREW,3X8MM
△ 12.	610 029 1799	PUSH BUTTON ASSY
△ 13.	610 220 1352	PUSH BUTTON ASSY (9 USED)
14.	610 220 5435	PUSH BUTTON ASSY
15.	610 231 0161	REAR CABINET
	610 230 5289	DECORATION PLATE (TOP)
	610 230 5296	DECORATION PLATE (BOTTOM)
	610 132 2447	HOOK,AC CORD
16.	411 077 1102	SCREW,4X10MM (2 USED)
△ 17.	610 230 4091	LAMP REPLACE COVER
18.	411 076 1103	SCREW,4X12MM (2 USED)
19.	610 230 4084	BOTTOMCABINET
△ 20.	610 225 2187	FILTER
21.	610 225 2200	FILTER MTG. PLATE
22.	411 076 1103	SCREW,4X12MM (3 USED)
23.	610 225 4068	LEG ASSY (4 USED)
24.	412 036 8408	SPECIAL NUT (4 USED)
25.	411 136 2903	NUT (4 USED)
26.	411 004 6101	NUT (4 USED)
27.	411 076 1103	SCREW,4X12MM (4 USED)

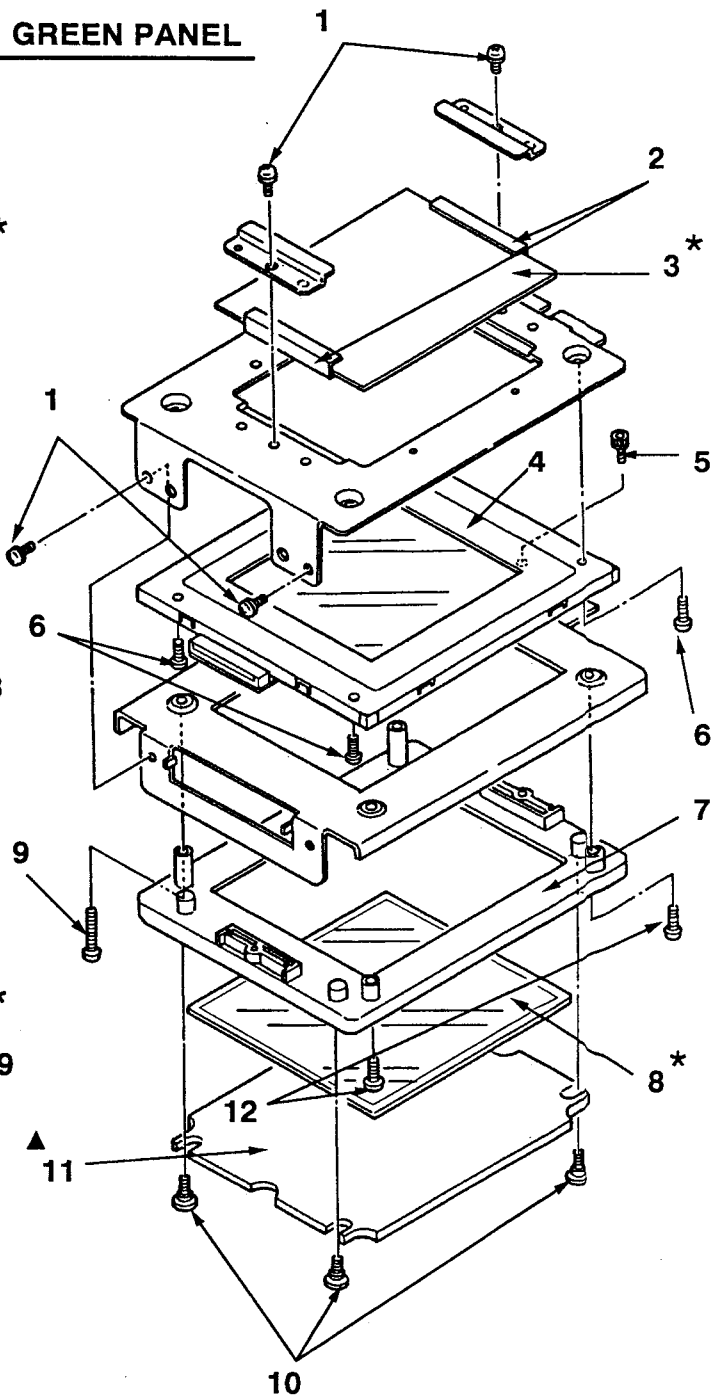
ACCESSORIES PARTS LIST

KEY NO.	PART NO.	DESCRIPTION
	610 230 6361	OWNER'S MANUAL (PLC-100P)
	610 231 9583	OWNER'S MANUAL (PLC-100PB/PP)
	610 225 4907	DUST COVER
	610 229 1056	RC TRANSMITTER
	610 105 0463	RC BATTERY COVER

RED/BLUE PANEL



GREEN PANEL



Caution;

* Coating face is inner side (LCD panel side).

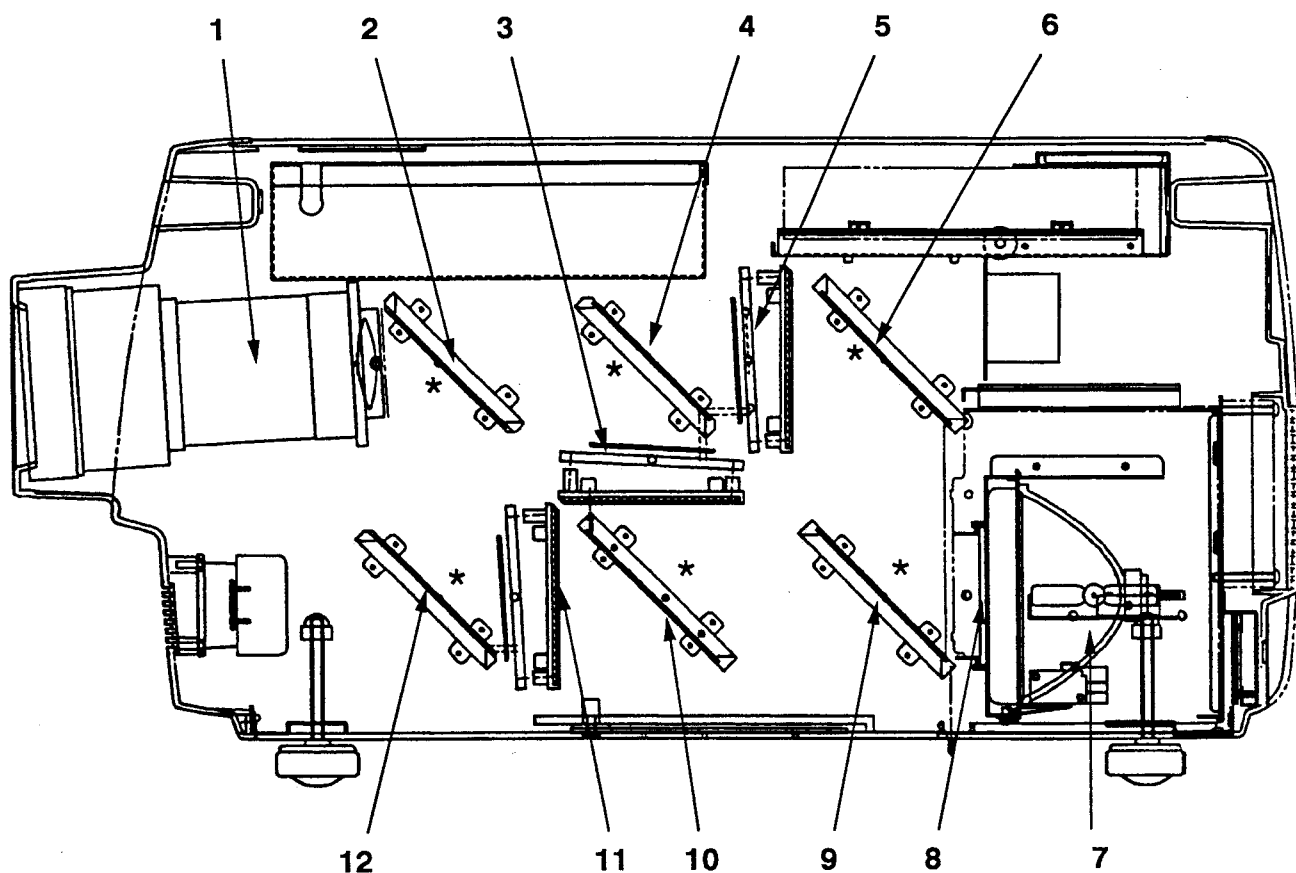
▲ Rugged face is inner side (LCD panel side).

LCD PANEL PARTS LIST

KEY NO.	RED/BLUE LCD PANEL PART NO.	DESCRIPTION
1.	411 036 6001	SCREW AND WASHER,3X8MM (2 USED)
2.	610 228 1316	SUPPORTER (2 USED)
3.	610 225 4105	POLARIZED GLASS ASSY (OUT)
4.	— — — — —	LCD PANEL (SEE ELECTRICAL PARTS LIST)
5.	412 037 7509	SPECIAL SCREW
6.	411 029 0900	SCREW,3X8MM (6 USED)
7.	610 225 0015	CONDENSER LENS BASE
8.	610 225 4099	POLARIZED GLASS ASSY (IN)
9.	411 028 8303	SCREW,3X18MM (2 USED)
10.	412 036 9108	SPECIAL SCREW (4 USED)
11.	610 225 2941	LENS (FRESNEL)
12.	411 028 7900	SCREW,3X14MM (2 USED)
13.	412 027 1401	SCREW,3X8MM
	412 037 7509	WASHER (2 USED)
14.	610 227 3052	SPRING
15.	412 037 7202	SPECIAL SCREW (2 USED)
	411 016 0500	RING- E (2 USED)
16.	412 036 7401	SPECIAL SCREW

KEY NO.	GREEN LCD PANEL PART NO.	DESCRIPTION
1.	411 036 6001	SCREW AND WASHER,3X8MM (2 USED)
2.	610 228 1316	SUPPORTER (2 USED)
3.	610 225 4105	POLARIZED GLASS ASSY (OUT)
4.	— — — — —	LCD PANEL (SEE ELECTRICAL PARTS LIST)
5.	412 037 7509	SPECIAL SCREW (2 USED)
6.	411 029 0900	SCREW,3X8MM (4 USED)
7.	610 225 0015	CONDENSER LENS BASE
8.	610 225 4099	POLARIZED GLASS ASSY (IN)
9.	411 028 8303	SCREW,3X18MM (2 USED)
10.	412 036 9108	SPECIAL SCREW (4 USED)
11.	610 225 2941	LENS (FRESNEL)
12.	411 028 7900	SCREW,3X14MM (2 USED)

OPTICAL PARTS



Caution;

*..... Coating face of the mirror.

OPTICAL PARTS LIST		
KEY NO.	PART NO.	DESCRIPTION
1.	610 225 2934	LENS(PROJECTION)
2.	610 230 6026	MIRROR(DICHROIC – B)
3.	-----	GREEN LCD PANEL ASSY (SEE LCD PANEL PARTS LIST)
4.	610 225 2989	MIRROR(DICHROIC – G2)
5.	-----	BLUE LCD PANEL ASSY
6.	610 225 3412	MIRROR(FOR RED)
⚠ 7.	-----	LAMP AND HOLDER ASSY (LP901A) (SEE ELECTRICAL PARTS LIST)
8.	610 225 2958	GLASS(UV CUT FILTER)
9.	610 230 6019	MIRROR(DICHROIC – R)
10.	610 225 2972	MIRROR(DICHROIC – G1)
11.	-----	RED LCD PANEL ASSY (SEE LCD PANEL PARTS LIST)
12.	610 225 3429	MIRROR(FOR BLUE)

VOLTAGE & WAVEFORMS

1. TR

	E(V)	C(V)	B(V)		E(V)	C(V)	B(V)		E(V)	C(V)	B(V)
Q0C1	6.1	0	6.7	Q131	0	11.6	0.1	Q843	0.8	0.8	1.5
Q0C2	0.3	11.8	0	Q132	0	0	5.2	Q844	0	0.1	0.8
Q0C3	2.4	11.8	3.1	Q151	11.3	4.0	10.8	Q847	0	10.5	0
Q0C4	11.8	0	11.8	Q152	3.3	10.9	3.9	Q848	0	10.2	0
Q0C5	0	11.7	0	Q152	11.3	4.0	10.8	Q861	0	4.0	0
Q0G1	3.0	11.8	3.6	Q153	2.6	11.7	3.0	Q871	0	0	0.1
Q0G2	3.0	11.8	3.6	Q171	3.2	11.8	3.6	Q872	0	5.0	0
Q0G3	0.1	0	0.1	Q172	3.2	11.8	3.6	Q221	0	4.6	0.2
Q0G4	0.1	0	0.1	Q173	3.2	11.8	3.6	Q2303	3.8	11.9	4.5
Q0P1	5.1	11.8	5.7	Q174	3.1	11.8	2.6	Q2304	1.3	11.9	1.9
Q021	6.8	11.8	6.7	Q175	3.2	11.8	2.6	Q2305	1.3	6.3	1.9
Q022	0	0	0.7	Q176	3.1	11.8	2.7	Q2306	5.7	11.9	6.3
Q023	0	10.7	0	Q177	2.6	11.8	3.2	Q2307	5.0	11.9	5.7
Q041	6.5	11.9	7.1	Q179	3.3	0	2.6	Q2313	3.8	11.9	4.5
Q042	6.4	11.8	7.0	Q181	0	0	0.7	Q2314	1.3	11.9	1.9
Q061	0	11.8	0.1	Q182	0	11.8	0	Q2315	1.3	6.3	1.9
Q062	0	11.8	0.1	Q183	0	5.3	0	Q2316	5.6	11.9	6.2
Q063	1.6	11.8	0.1	Q184	0	0	0.9	Q2317	5.0	11.9	5.7
Q069	5.0	11.6	5.7	Q801	0	0	5.0	Q2323	3.8	11.9	4.5
Q081	5.7	11.8	6.2	Q802	0	2.1	0.9	Q2324	1.3	11.9	1.9
Q082	5.7	11.8	6.3	Q803	0	0.1	2.8	Q2325	1.3	6.3	1.9
Q083	1.3	5.4	2.0	Q804	0	0.1	2.8	Q2326	5.7	11.9	6.3
Q084	0	0	0.7	Q805	0	0.1	2.8	Q2327	5.0	11.9	5.7
Q1A1	3.7	11.8	4.3	Q806	0	5.0	0	Q251	8.3	0	7.6
Q1F1	11.0	11.8	11.7	Q821	5.0	10.4	5.7	Q252	7.1	15.0	7.6
Q1F2	0	0	11.1	Q824	4.4	5.0	5.0	Q253	7.7	14.8	8.3
Q1F3	0	0	0	Q829	0	9.4	0	Q254	7.6	0.2	7.1
Q1F4	0	0	0	Q831	0	0.1	9.4	Q261	8.3	0	7.7
Q1F5	9.4	11.0	0	Q842	0.1	0.2	0.9	Q262	7.2	14.9	7.7

	E(V)	C(V)	B(V)		E(V)	C(V)	B(V)		E(V)	C(V)	B(V)
Q263	7.8	14.8	8.3	Q482	0	0.1	0				
Q264	7.7	0.2	7.1	Q483	0	4.3	0				
Q271	8.3	0	7.6	Q484	0	0.1	0.2				
Q272	7.1	15.0	7.7	Q501	5.2	11.9	5.9				
Q273	7.7	14.8	8.3	Q502	0.5	11.9	0.7				
Q274	7.6	0.2	7.1	Q503	6.5	0	6.2				
Q281	7.4	15.0	7.4	Q504	7.2	0	6.2				
Q282	7.4	0	7.4	Q505	1.3	6.2	1.6				
Q283	7.5	14.9	7.5	Q551	- 16.1	- 6.5	- 15.5				
Q284	7.5	0	7.5	Q561	- 16.1	- 6.3	- 15.5				
Q285	7.5	15.0	7.5	Q571	- 16.1	- 6.0	- 15.5				
Q286	7.5	4.6	7.5								
Q301	- 1.0	9.2	- 0.4								
Q302	- 1.6	6.7	- 1.0								
Q303	6.1	9.2	6.7								
Q304	5.4	9.2	6.1								
Q305	2.6	9.2	3.3								
Q306	2.0	0	1.3								
Q307	- 1.0	9.2	- 0.4								
Q308	- 1.0	9.2	- 0.4								
Q309	3.7	9.2	4.4								
Q310	2.6	0	1.9								
Q311	3.8	9.2	4.5								
Q312	3.3	0	2.6								
Q401	0	5.1	- 1.0								
Q421	2.0	0	1.4								
Q422	3.1	0	2.5								
Q470	0	0	0.7								
Q481	0	0	0.7								

2. IC

Pin	V	Pin	V	Pin	V	Pin	V
IC001		7	11.7	13	5.7	5	11.2
1	4.6	8	2.5	14	5.7	6	11.3
2	0	IC041		15	5.7	7	0
3	4.7	1	0	16	11.7	8	11.4
4	0	2	0	IC052		9	23.6
5	6.7	3	0	1	3.1	IC1A1	
6	0	4	11.7	2	0	1	0.3
7	4.6	5	7.7	3	3.1	2	1.1
8	10.7	6	0	4	4.7	3	5.0
9	6.7	7	7.8	5	11.7	4	7.7
10	0	8	7.1	IC061		5	4.0
11	6.9	9	11.7	1	0	6	6.8
12	4.9	10	7.7	2	0	7	4.8
13	4.9	11	7.0	3	0	8	2.9
14	4.9	12	7.8	4	0	9	0
15	3.6	IC051		5	7.8	10	1.8
16	3.6	1	0	6	0	11	0
17	4.9	2	5.7	7	7.7	12	0.7
18	4.9	3	5.7	8	7.0	13	11.7
19	4.9	4	5.7	9	11.7	14	3.3
20	3.6	5	5.1	10	7.7	15	4.6
IC002		6	0	11	7.0	16	9.3
1	0	7	0	12	7.8	17	1.6
2	2.8	8	0	IC091		18	6.3
3	11.7	9	11.7	1	11.7		
4	9.2	10	0	2	5.3		
5	11.1	11	11.7	3	0		
6	2.9	12	0	4	2.8		

Pin	V	Pin	V	Pin	V	Pin	V
IC1K1		11	2.4	10	1.7	9	2.8
1	0	12	7.8	11	0.6	10	2.8
2	2.1	13	11.6	12	3.5	11	0
3	4.7	14	5.8	13	8.4	12	5.1
4	2.9	15	3.3	14	8.3	13	0
5	0.7	16	8.0	15	7.0	14	5.1
6	0	17	3.0	16	3.3	15	0
7	0	18	7.8	17	7.2	16	5.1
8	0	19	0	18	0	17	5.1
9	1.3	20	5.6	19	2.7	18	0
10	4.7	21	7.3	20	4.9	19	0
11	4.7	22	4.2	21	4.7	20	0
12	3.4	23	0	22	4.5	21	0
13	1.3	24	1.7	23	4.7	22	0
14	0	25	0.1	24	0	23	5.1
15	1.4	26	0.1	25	6.2	24	5.1
16	4.7	27	0.1	26	3.9	25	5.1
IC101		28	5.8	27	0	26	5.1
1	7.5	IC102		28	0	27	0
2	8.2	1	3.6	IC801		28	2.3
3	7.5	2	5.0	1	5.1	29	5.1
4	4.7	3	3.6	2	5.1	30	2.2
5	5.3	4	5.4	3	5.3	31	2.4
6	8.2	5	3.6	4	5.1	32	0
7	5.1	6	11.7	5	5.1	33	4.6
8	4.7	7	11.7	6	0	34	5.1
9	0	8	3.3	7	2.8	35	5.1
10	2.4	9	9.9	8	2.8	36	5.1

Pin	V	Pin	V	Pin	V	Pin	V
IC801		64	5.1	14	5.0	14	4.0
37	5.1	IC802		15	3.2	15	4.5
38	5.0	1	5.0	16	11.1	16	0.8
39	5.0	2	5.0	IC851/852		17	2.9
40	5.0	3	0	1	0	18	2.9
41	5.0	IC803		2	0.6	19	3.7
42	0	1	5.1	3	0.8	20	− 8.1
43	0	2	5.1	4	5.1	21	0.5
44	0	3	5.1	5	0	22	5.1
45	0	4	5.1	6	0	23	5.1
46	0	5	0	7	11.9	24	5.1
47	0	6	5.1	8	11.9	25	4.2
48	5.0	7	5.1	9	0.8	26	2.5
49	0	8	5.1	10	0.6	27	− 7.3
50	0	IC804		IC201		28	0
51	0	1	5.1	1	3.0	29	0
52	0.9	2	0.1	2	3.6	30	2.9
53	0	3	0.1	3	2.0	31	2.9
54	0	4	0	4	4.7	32	2.9
55	0.1	5	0	5	0	33	0.8
56	0.1	6	0.1	6	3.0	34	4.6
57	0	7	9.3	7	4.0	35	0
58	0	8	0	8	3.1	36	1.7
59	0.1	9	0.3	9	2.6	37	1.8
60	0.1	10	5.0	10	3.1	38	1.9
61	0.1	11	5.0	11	5.1	39	0
62	5.1	12	7.8	12	3.1	40	− 1.8
63	4.2	13	5.0	13	2.1	41	0

Pin	V	Pin	V	Pin	V	Pin	V
IC201		IC2301/2302/2303		5	2.7	33	4.5
42	- 1.7	1	0	6	0	34	0
43	0.1	2	1.7	7	1.8	35	5.1
44	- 1.6	3	1.6	8	1.4	36	5.1
45	- 8.1	4	1.5	9	1.6	37	1.3
46	0.1	5	1.5	10	2.0	38	2.2
47	2.6	6	1.4	11	1.3	39	2.7
48	5.1	7	2.4	12	2.2	40	1.4
49	3.6	8	2.0	13	2.6	41	1.8
50	0	9	1.3	14	1.4	42	1.6
IC202		10	2.6	15	1.5	IC2314	
1	3.5	11	0	16	1.5	1	0
2	2.5	12	0	17	1.6	2	2.2
3	2.5	13	5.1	18	1.7	3	2.6
4	- 8.1	14	5.1	19	2.4	4	1.3
5	7.4	15	1.7	20	2.5	5	2.7
6	7.4	16	2.4	21	2.4	6	4.8
7	7.4	17	3.9	22	0	7	0.9
8	15.0	18	3.9	23	5.1	8	4.7
IC203		19	3.1	24	2.8	9	2.6
1	7.5	20	5.1	25	5.1	10	0
2	7.5	21	5.1	26	4.1	11	0
3	7.5	22	0	27	4.1	12	4.7
4	- 8.1	IC2313		28	0	13	0.9
5	7.5	1	2.6	29	4.5	14	4.8
6	7.5	2	1.6	30	0	15	2.2
7	7.5	3	1.3	31	4.5	16	2.3
8	15.0	4	2.2	32	0	17	2.2

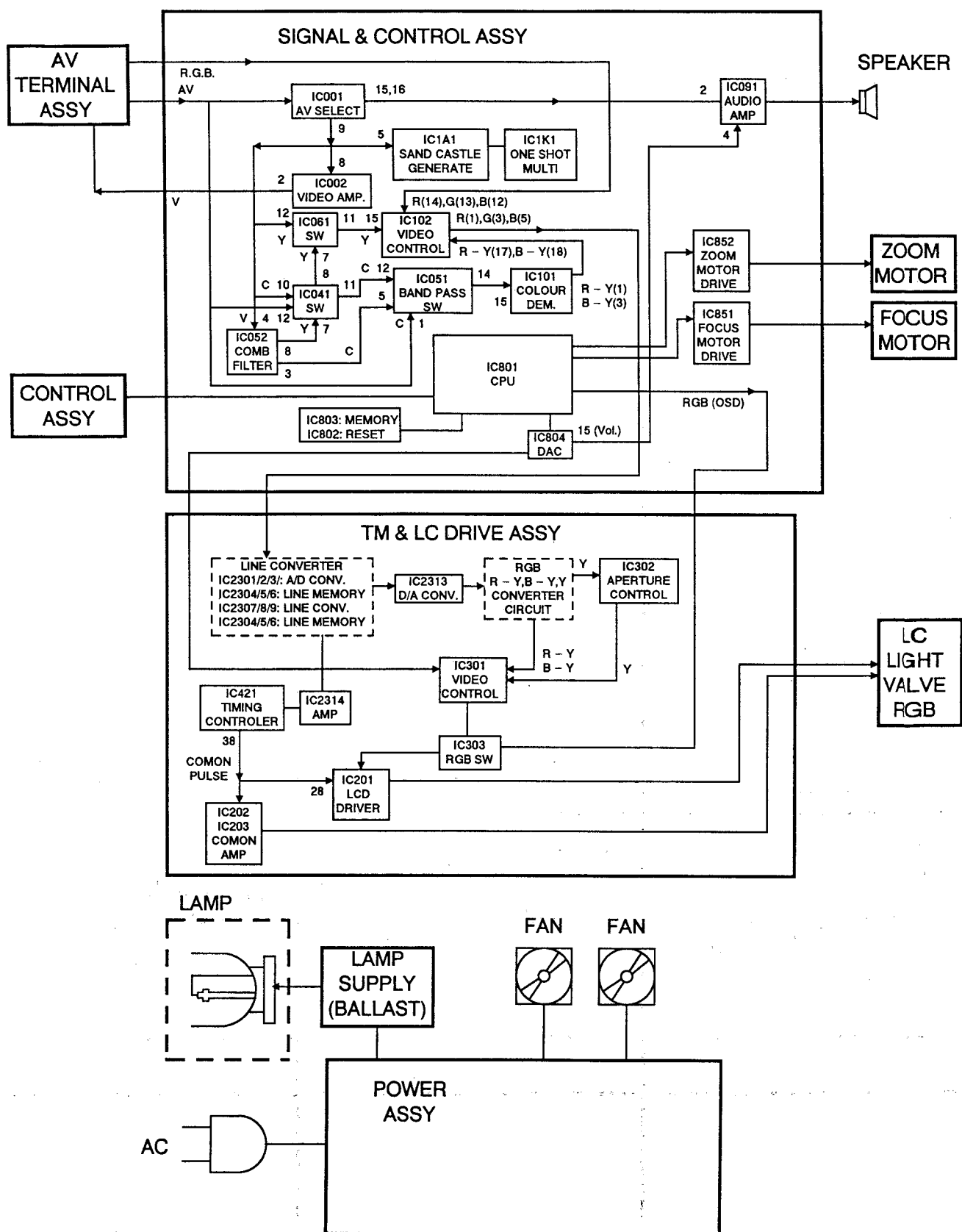
Pin	V	Pin	V	Pin	V	Pin	V
IC2314		24	4.1	IC402		16	0
18	2.7	25	4.6	1	19.5	17	2.3
19	0	26	3.9	2	15.0	18	2.3
20	5.1	27	6.5	3	0	19	2.3
IC301		28	9.2	IC403		20	2.3
1	0.2	IC302		1	- 12.6	21	2.5
2	0.1	1	2.4	2	- 8.1	22	2.4
3	0.2	2	4.5	3	0	23	0
4	7.7	3	4.1	IC404		24	5.1
5	4.0	4	0	1	11.9	25	0
6	4.0	5	2.4	2	9.2	26	2.7
7	5.6	6	9.2	3	0	27	2.7
8	5.2	7	6.3	IC421		28	5.0
9	0	IC303		1	0	29	4.0
10	1.3	1	3.6	2	3.1	30	4.0
11	3.8	2	3.6	3	3.2	31	3.7
12	3.5	3	3.6	4	4.6	32	0
13	7.0	4	0.1	5	4.6	33	5.0
14	4.1	5	3.6	6	4.6	34	5.0
15	3.6	6	3.6	7	0	35	0.3
16	5.2	7	0	8	0	36	0
17	3.6	8	3.7	9	0	37	0.1
18	5.2	9	11.9	10	0	38	2.6
19	3.6	10	0	11	0	39	0.2
20	5.4	11	2.7	12	0	40	5.1
21	0	12	0	13	0	41	4.6
22	1.4	13	3.0	14	5.0	42	4.5
23	2.7			15	0	43	4.2

Pin	V	Pin	V	Pin	V	Pin	V
IC421		6	5.1	IC501			
44	4.5	7	0	1	1.3		
45	0	8	2.6	2	0.5		
46	2.2	9	2.7	3	0.5		
47	2.2	10	5.1	4	- 8.1		
48	0.8	11	0	5	0.5		
49	0.3	12	5.1	6	0		
50	1.5	13	0	7	11.4		
51	0	14	5.1	8	11.9		
52	0	IC480					
53	5.1	1	0.2				
54	5.1	2	5.1				
55	4.8	3	5.1				
56	4.7	4	4.3				
57	0	5	0.2				
58	0.9	6	5.0				
59	2.5	7	0.8				
60	1.3	8	0				
61	2.1	9	0.2				
62	4.3	10	0				
63	0.1	11	5.1				
64	5.1	12	4.3				
IC423		13	0.2				
1	2.6	14	5.0				
2	2.7	15	0				
3	2.7	16	5.1				
4	2.7						
5	0						

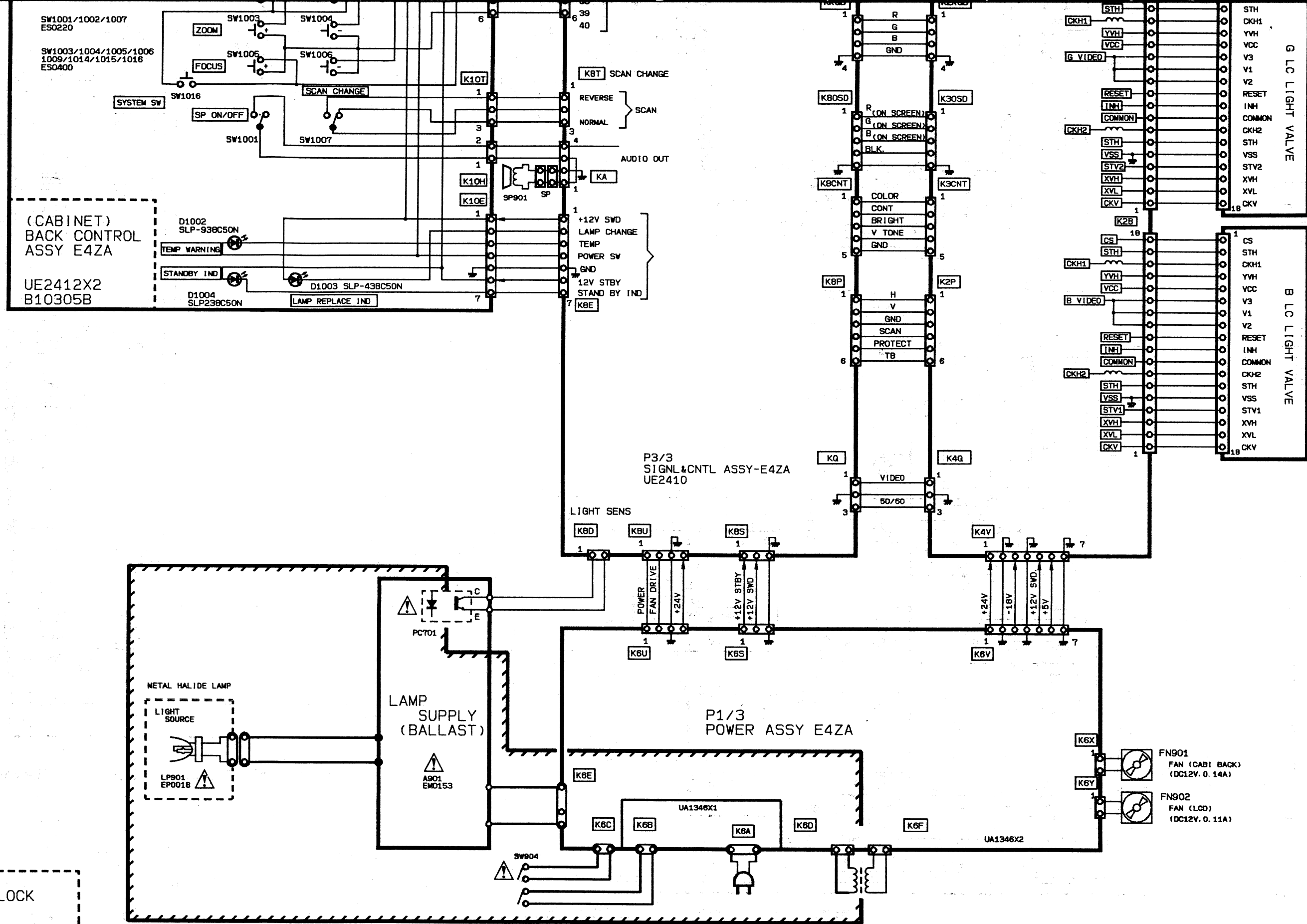
3. WAVEFORMS

IC101 15Pin (TP 1A)	IC101 1Pin (TP RY)	IC101 3Pin (TP BY)
0.2Vpp (H) 	0.2Vpp (H) 	0.2Vpp (H)
IC102 1Pin	IC102 3Pin	IC102 5Pin
4Vpp (H) 	4Vpp (H) 	4Vpp (H)
Q2303 - B (TP 1B)	Q2313 - B (TP 1G)	Q2323 - B (TP 1R)
0.8Vpp (H) 	0.8Vpp (H) 	0.8Vpp (H)
TP 22R	TP 22G	TP 22B
1.2Vpp (H) 	1.2Vpp (H) 	1.2Vpp (H)

BLOCK DIAGRAM



Chassis No.PJP1



PRODUCT SAFETY NOTICE

THE COMPONENTS DESIGNATED BY A MARK (Δ) IN THIS SCHEMATIC DIAGRAM DESIGNATE COMPONENTS WHOSE VALUES ARE OF SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. SHOULD ANY COMPONENT DESIGNATED BY A MARK NEED TO BE REPLACED, USE ONLY THE PART DESIGNATED IN THE PARTS LIST. DO NOT DEVIATE FROM THE RESISTANCE, WATTAGE AND VOLTAGE RATINGS SHOWN.

SERVICE NOTES;

1. When replacing parts on circuit boards, clamp the lead wires to terminals before soldering.
2. When replacing high wattage resistors on circuit board, keep the resistor body 10 mm (3/8") from circuit board.
3. Keep wires away from high voltage and high temperature components.

NOTES ON SCHEMATIC DIAGRAM

Specification of capacitor and resistors will be shown with coded symbols, reading code symbols following the chart and notes. Some capacitor and resistors will be shown directly with values and no other information. Detailed information on each capacitor and resistor will be shown in the list.

NOTE; DO NOT REPLACE OR ORDER RESISTOR AND CAPACITOR PARTS FOLLOWING THE SPECIFICATIONS SHOWN IN THE SCHEMATIC DIAGRAMS.

ALWAYS CHECK FOR THE CORRECT SPECIFICATIONS IN THE PARTS LIST, ESPECIALLY FOR CRITICAL COMPONENT MARKED Δ. SPECIAL ATTENTION MUST BE GIVEN TO CRITICAL COMPONENTS.

Read resistor codes as follows:

1. All resistance values are indicated in ohms: K=1,000. M=1,000,000.
 2. All resistance values are 1/6W, ± 5% unless otherwise identified with the code.
- Read wattage, material and tolerance codes following the chart.

Read capacitor codes as follows:

1. For capacitors identified with with -||-, values less than 1 are expressed in μF, values more than 1 are in pF.
2. For capacitors (electrolytic) identified with -H-, values are expressed in μF.

(NPN-TR)

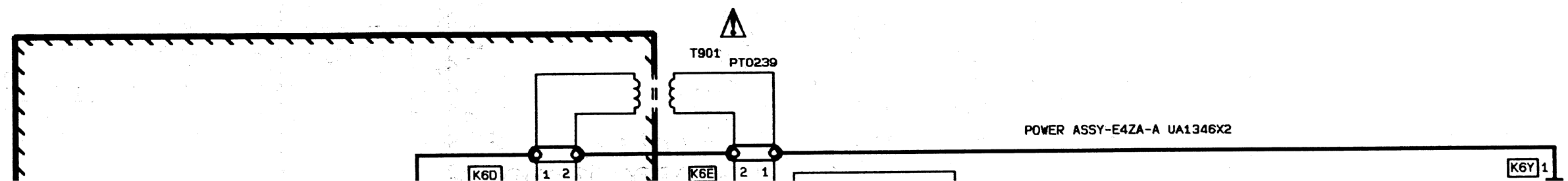
	SANYO NO.	2SC536	2SC945A	2SC1815	2SC1740	2SC1740S
A	7QT00214	E. F. G	P. Q. R	O. Y. G	Q. R. S	Q. R. S
B	7QT00083	E. F. G	P. Q. R	O. Y. G	Q. R. S	Q. R. S
C	7QT00422	F. G	P. Q	Y. G	Q. R. S	Q. R. S
D	7QT00128	F. G	P. Q	Y. G	Q. R. S	Q. R. S
E	7QT00423	F. G	P	G	R. S	R. S
F	7QT00168	F. G	P	G	R. S	

(PNP-TR)

	SANYO NO.	2SA608	2SA564A	2SA1015	2SA933	2SA933S
Z	7QT00418	E. F	Q. R	O. Y. G	Q. R	Q. R
Y	7QT00419	E. F	Q. R	O. Y. G	Q. R	Q. R
X	7QT00420	F	R	Y. G	R	R
W	7QT00421	F	R	Y. G	R	

(DIODE)

	SANYO NO.	T Y P E	N O
	7ED00181	1S1555. 1S2473. 1S2076. 1SS133. DS442. 1SS176	
K	7E100007	1S1555. 1S2473. 1S2076. DS442	
L	7E100028	1S1553. 1S2076A. 1S2471	
M	7ED00025	1SS176. GMA01. 1SS133	
N	7DD00020	1S1555. 1S2473. 1S2076. 1SS133. DS442. 1SS176. 1N4148	
P	7DD00021	1S1553. 1S2076A. 1S2471. 1N4148	

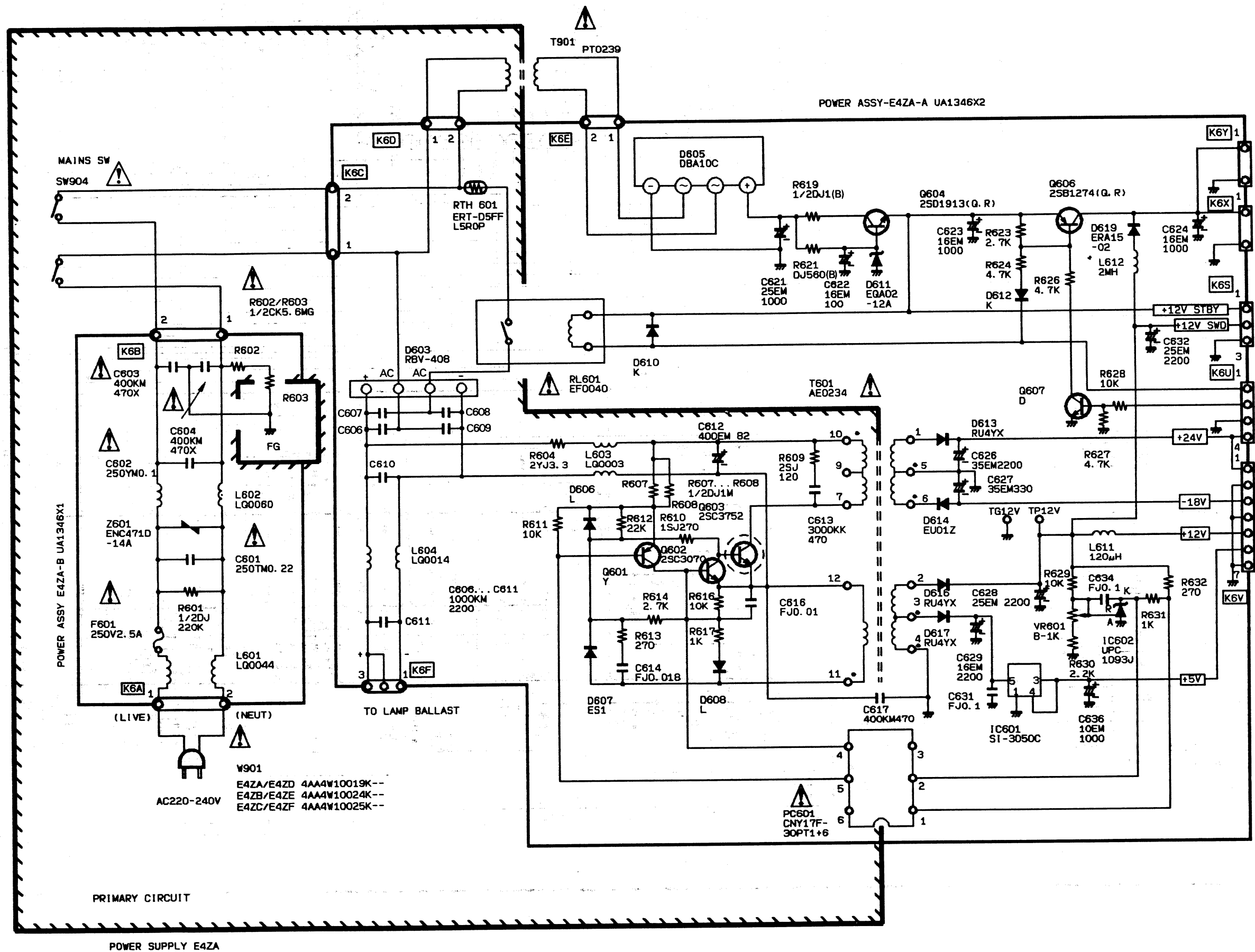


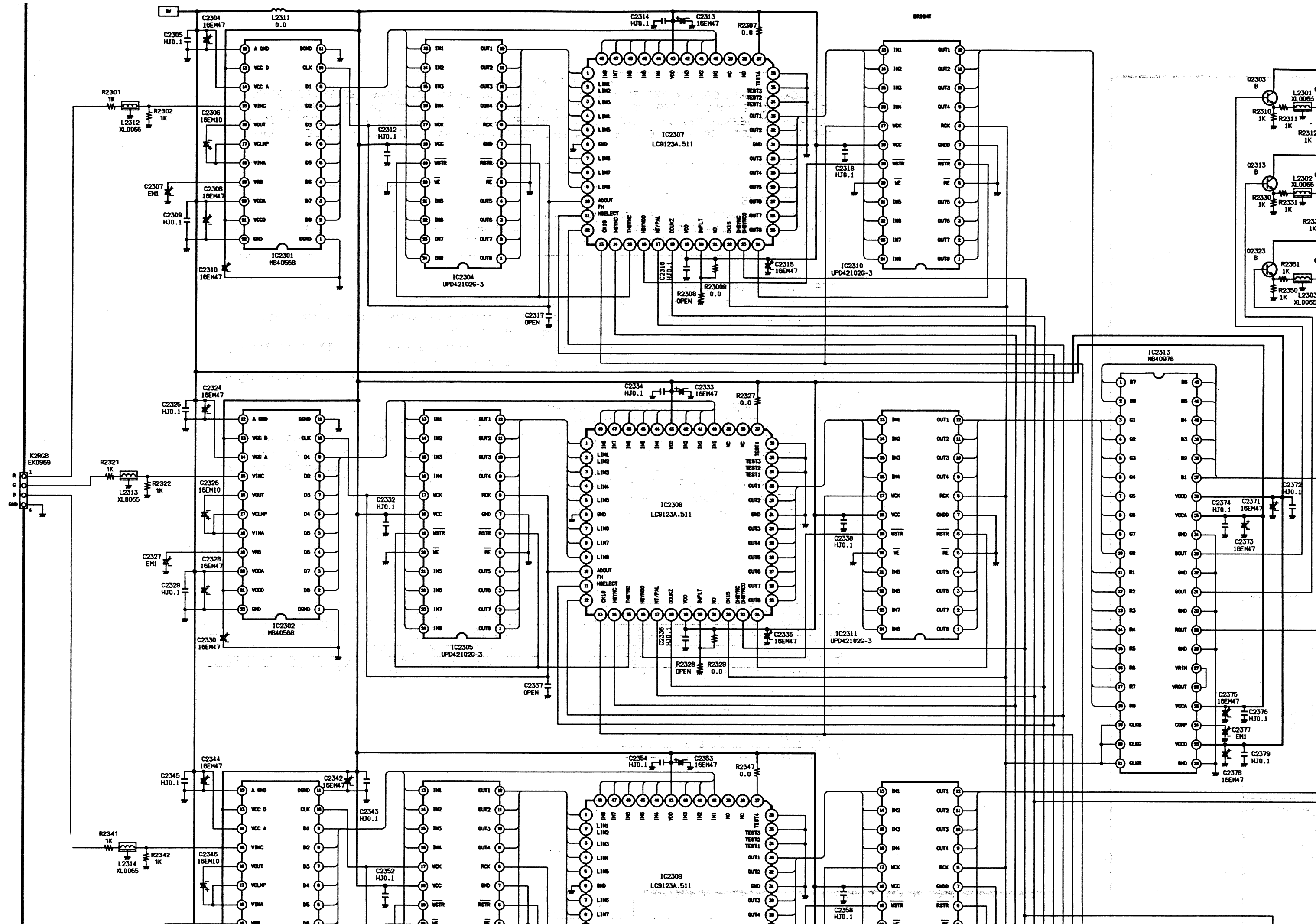
CKH1
YVH
VCC
V3
V1
V2
RESET
INH
COMMON
CKH2
STH
VSS
STV2
XVH
XVL
CKV

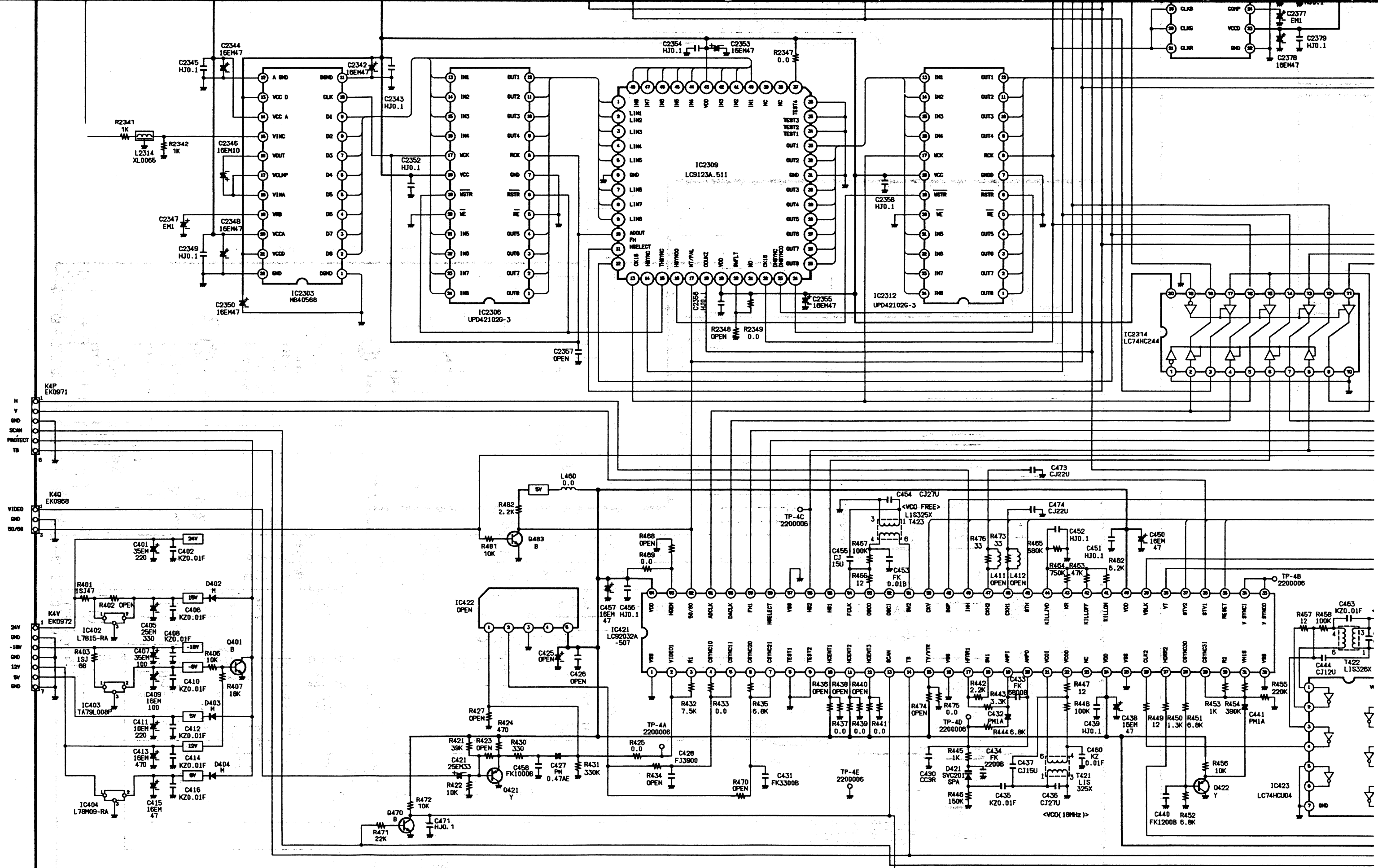
1
CS
STH
CKH1
YVH
VCC
V3
V1
V2
RESET
INH
COMMON
CKH2
STH
VSS
STV1
XVH
XVL
CKV

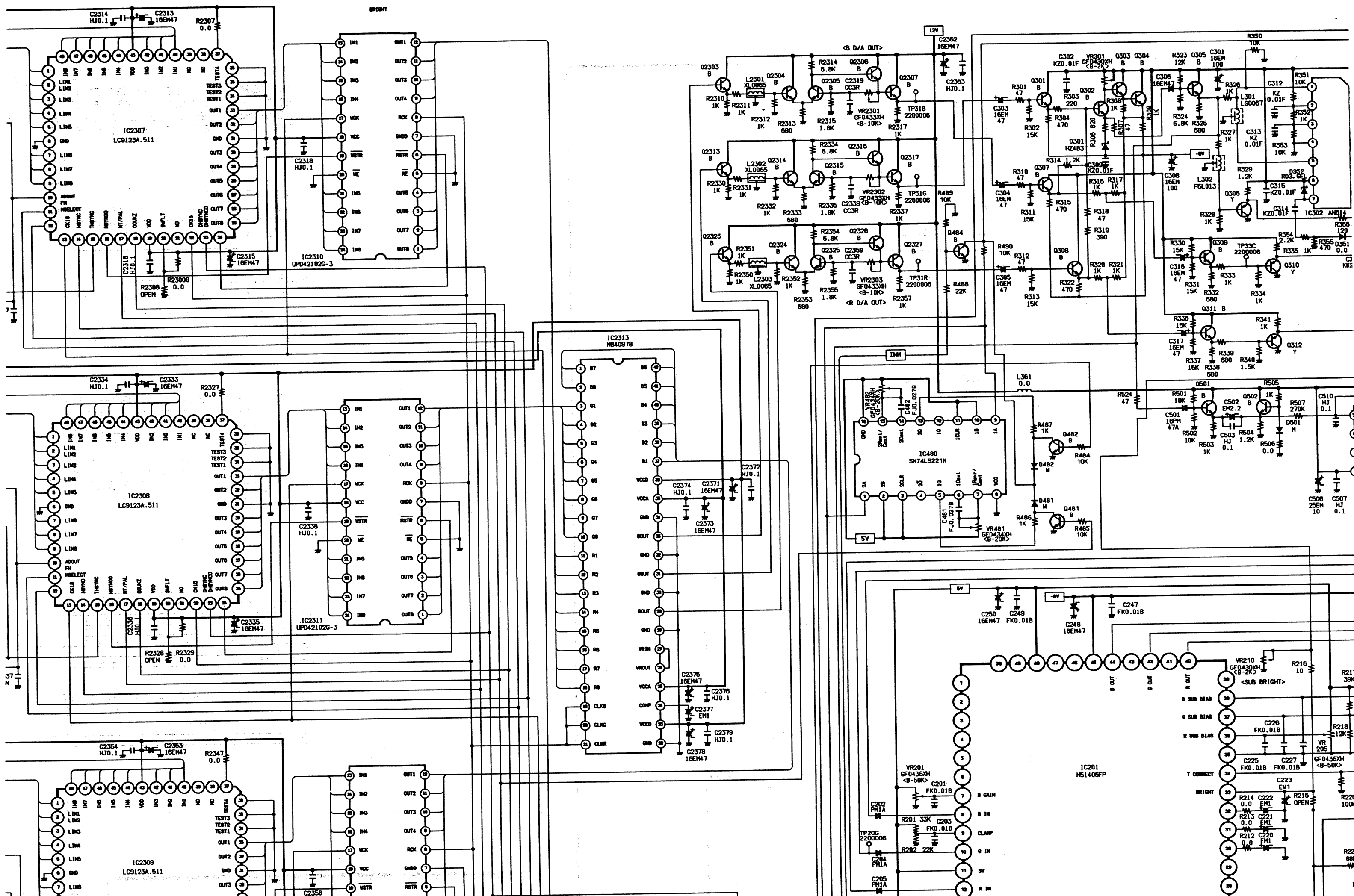
BACK)
4A)

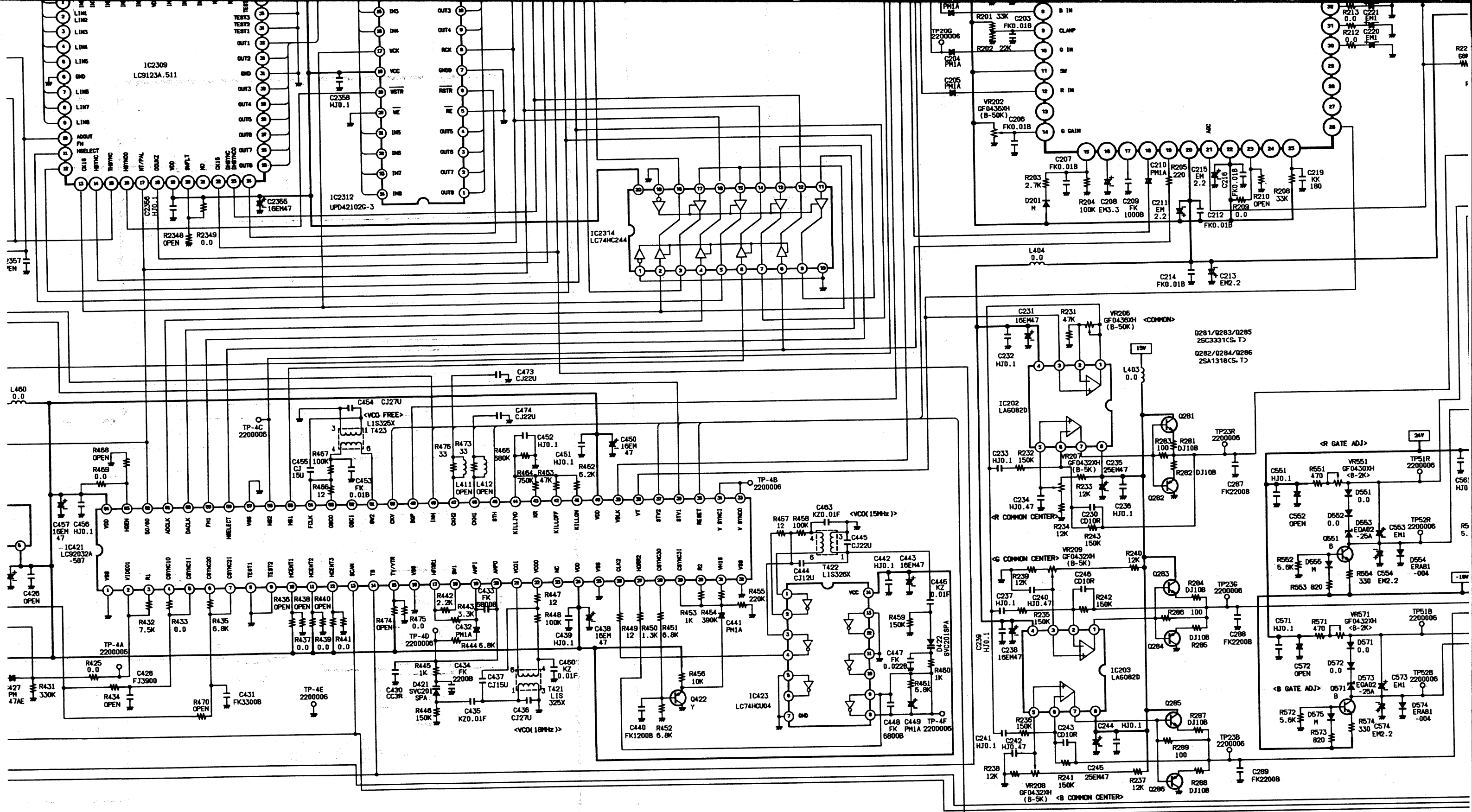
1A)



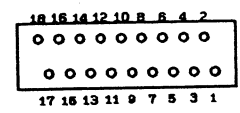






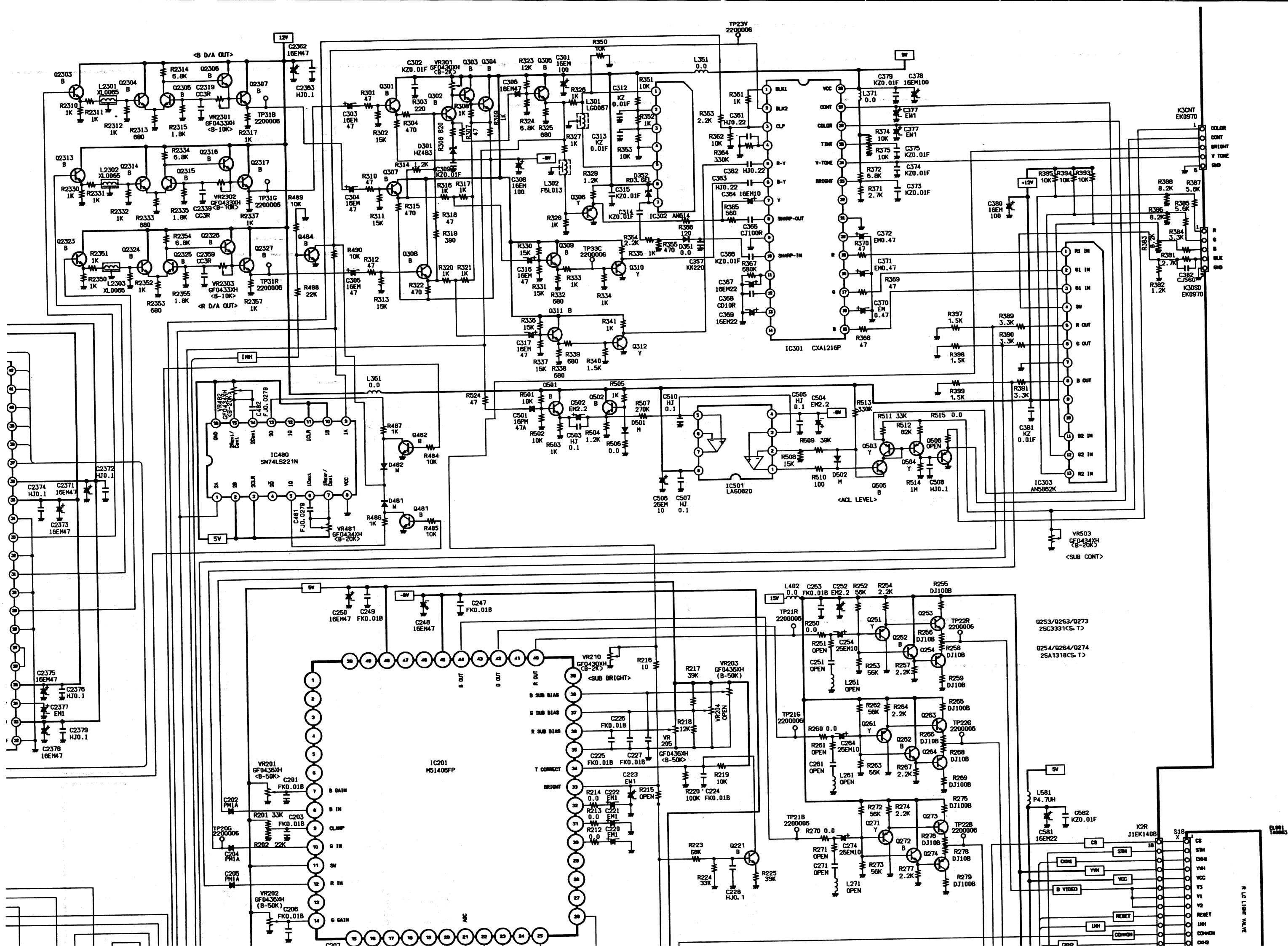


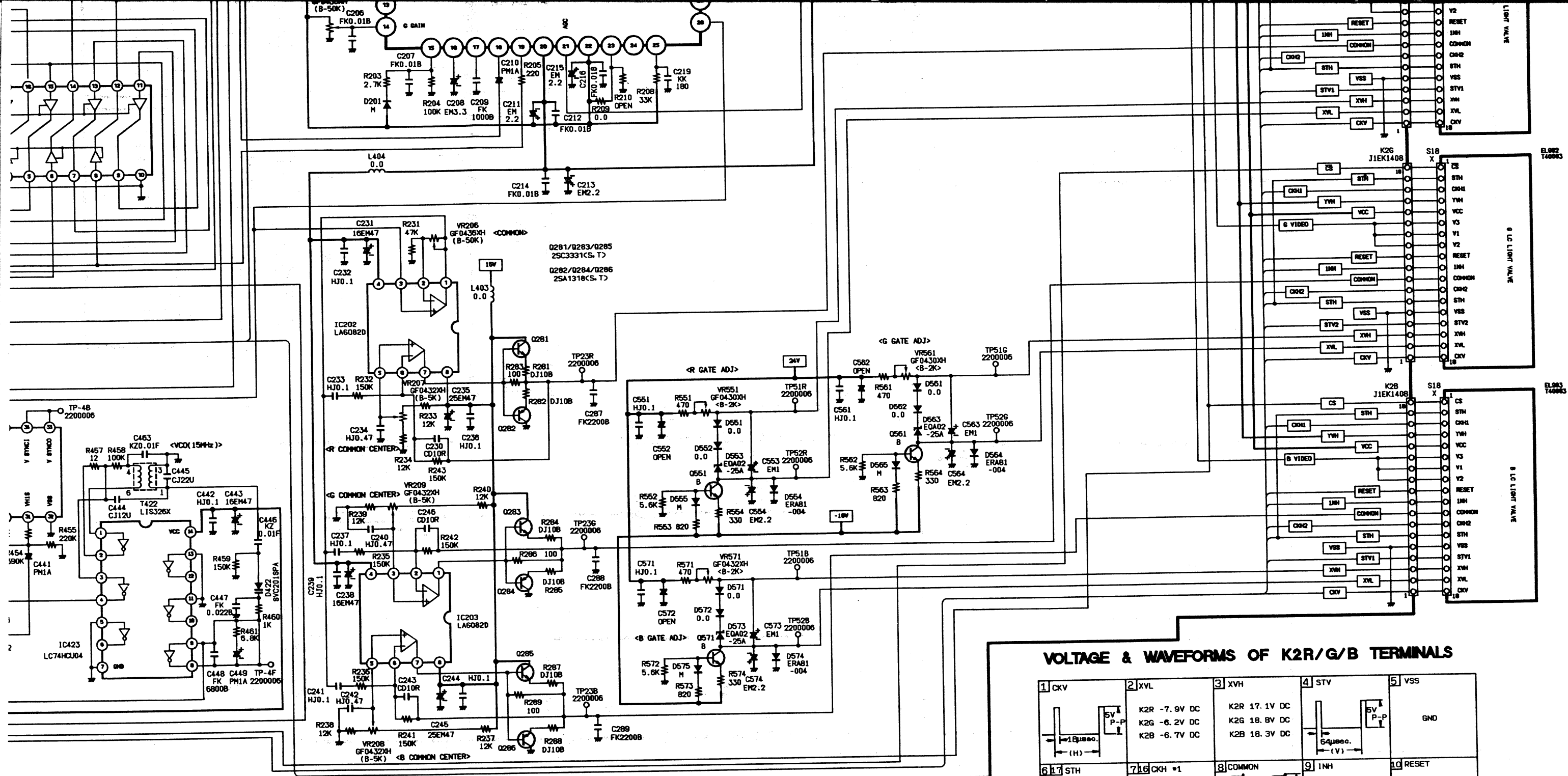
NUMBER OF CONNECTOR K2R/G/B TERMINAL
(VIEWED FROM FOIL SIDE OF P.V.B.)



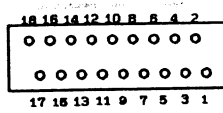
#1 ... PHASE OF C	
SCANNING	
NORMAL	CKH2 1
REVERSE	CKH1 1

#2 ... SCANNING	
SCANNING	K2R-
NORMAL	4. 3'
REVERSE	OV





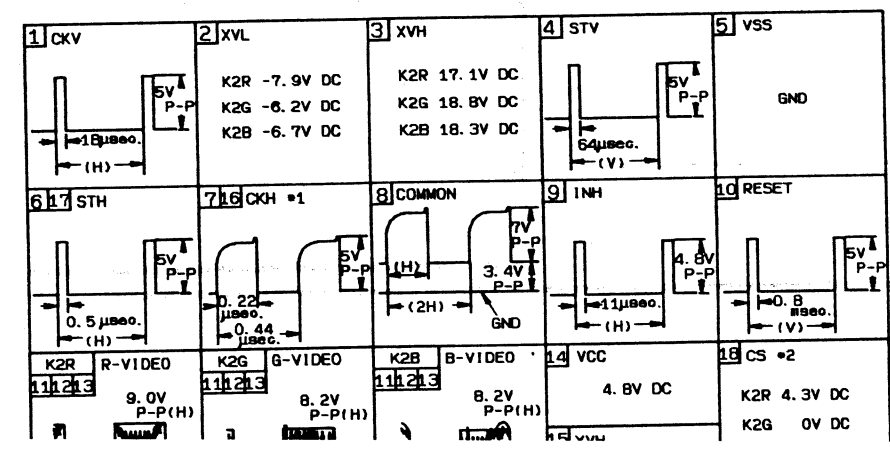
NUMBER OF CONNECTOR K2R/G/B TERMINAL
(VIEWED FROM FOIL SIDE OF P.W.B.)



*1 ... PHASE OF CKH1(PIN 16) AND CKH2(PIN 7)	
SCANNING	PHASE
NORMAL	CKH2 IS FORWARD 90 DEGREE FROM CKH1.
REVERSE	CKH1 IS FORWARD 90 DEGREE FROM CKH2.

*2 ... SCANNING CHANGE

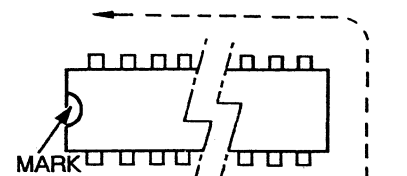
VOLTAGE & WAVEFORMS OF K2R/G/B TERMINALS



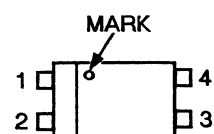
Chassis No.PJP1

INTEGRATED CIRCUIT

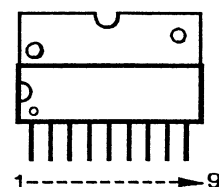
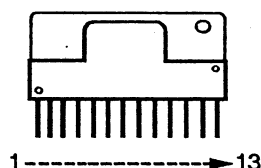
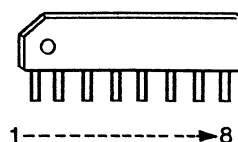
TOP VIEW



Count terminal in arrow direction.

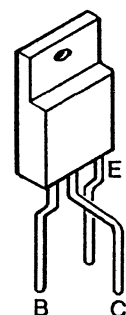


SIDE VIEW

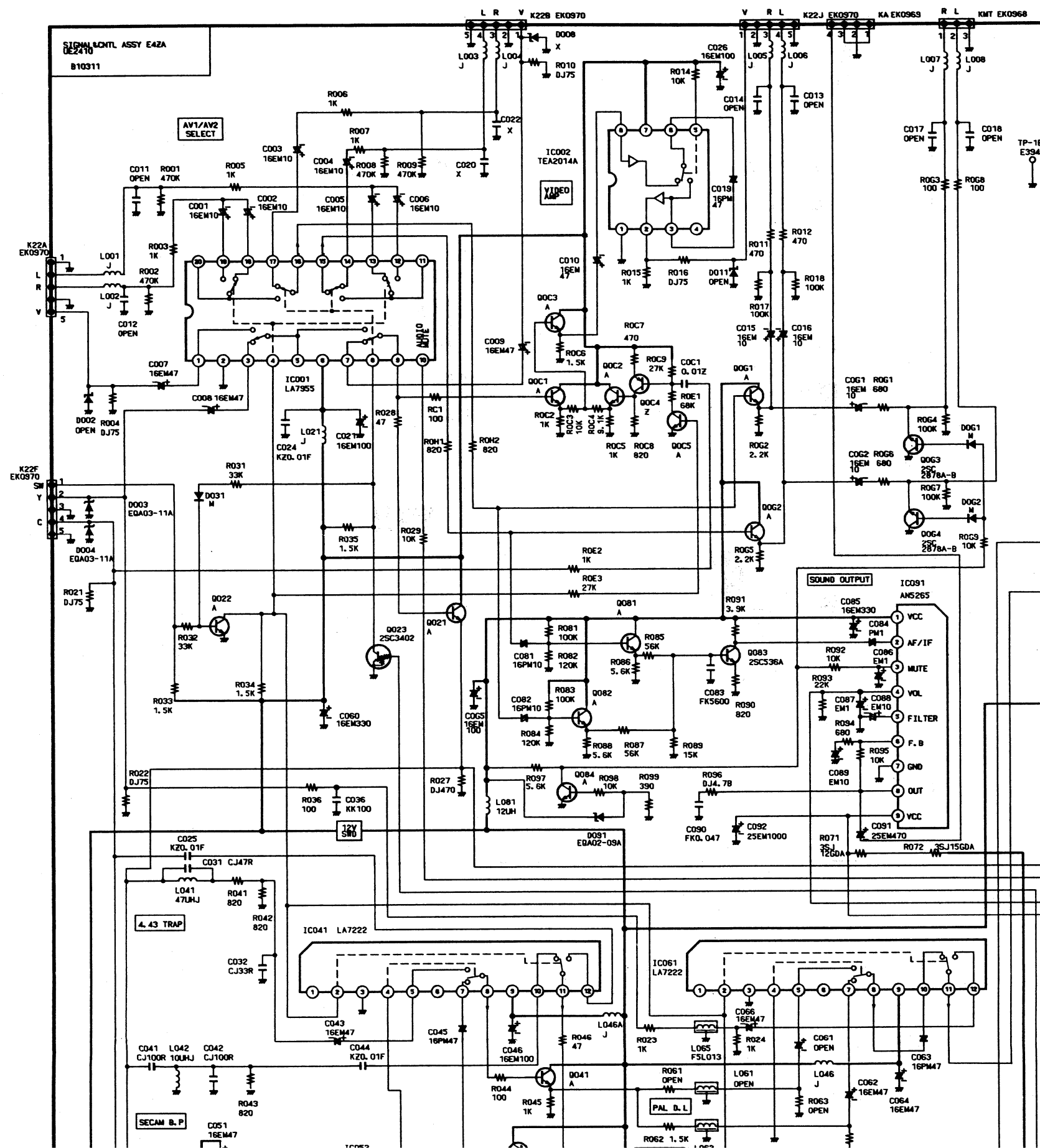


IC601~IC603

TRANSISTORS

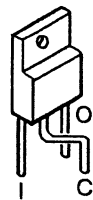


B..... BASE
C..... COLLECTOR
E..... EMITTER



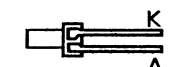
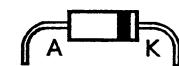
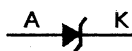
1-----9

IC601~IC603



I.....INPUT
O.....OUTPUT
C.....COMMON

DIODES



INFRARED EMITTING DIODE

AANODE
KCATHODE

CAPACITOR (Example)

500 C K 1500 B

Characteristic
Value code
Tolerance code
Material code
Voltage number

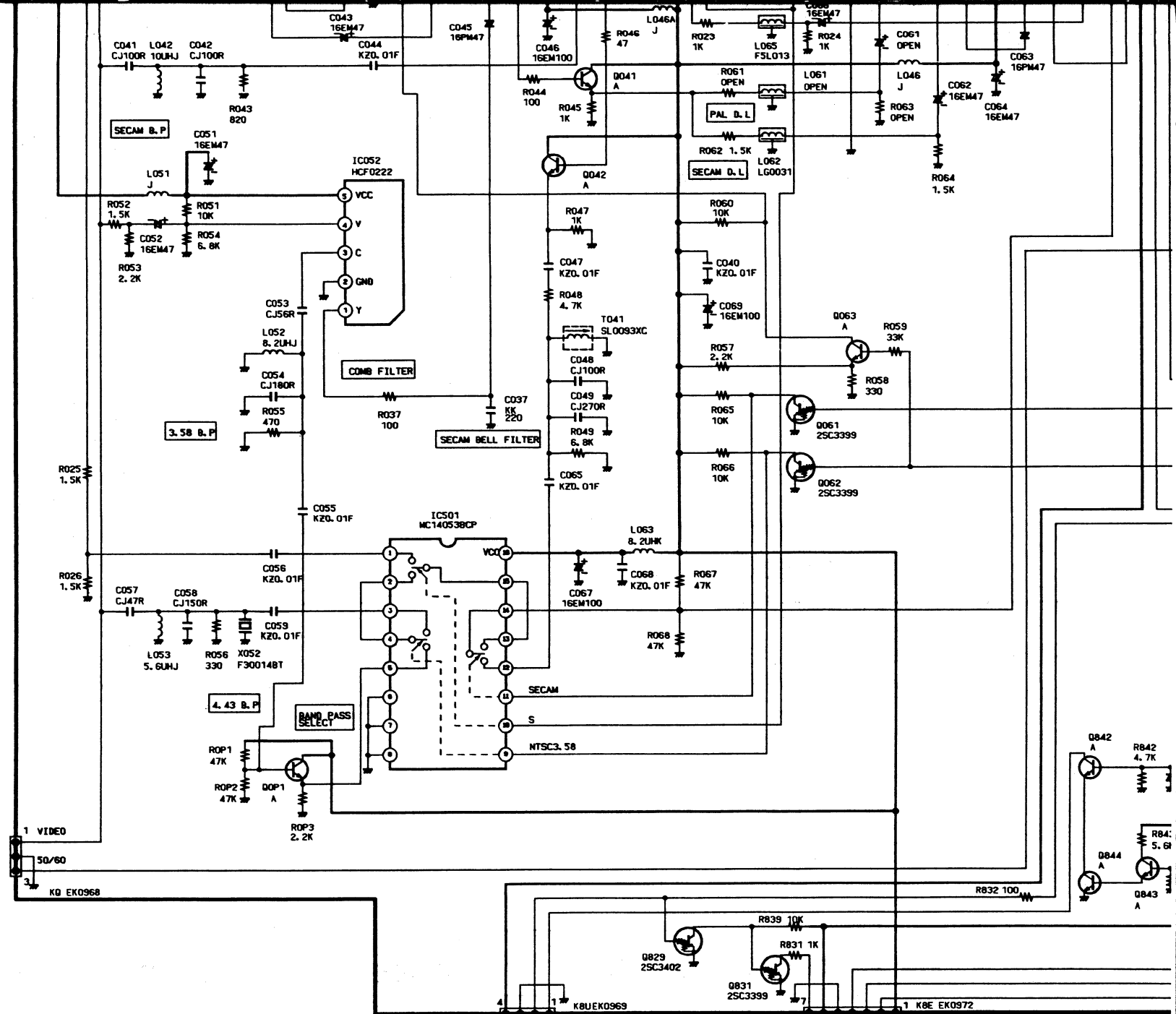
D±0.5pF
T+50% - 10%
J±5%
K±10%
M±20%
N±30%
P+100% - 0%
Z+80% - 20%
C±0.25pF
CCeramic
EElectrolytic
FPolyester
NPolypropylene
TTantalum
KCeramic
HMT-Composite
PNP. Electrolytic
MMT-Polypropylene

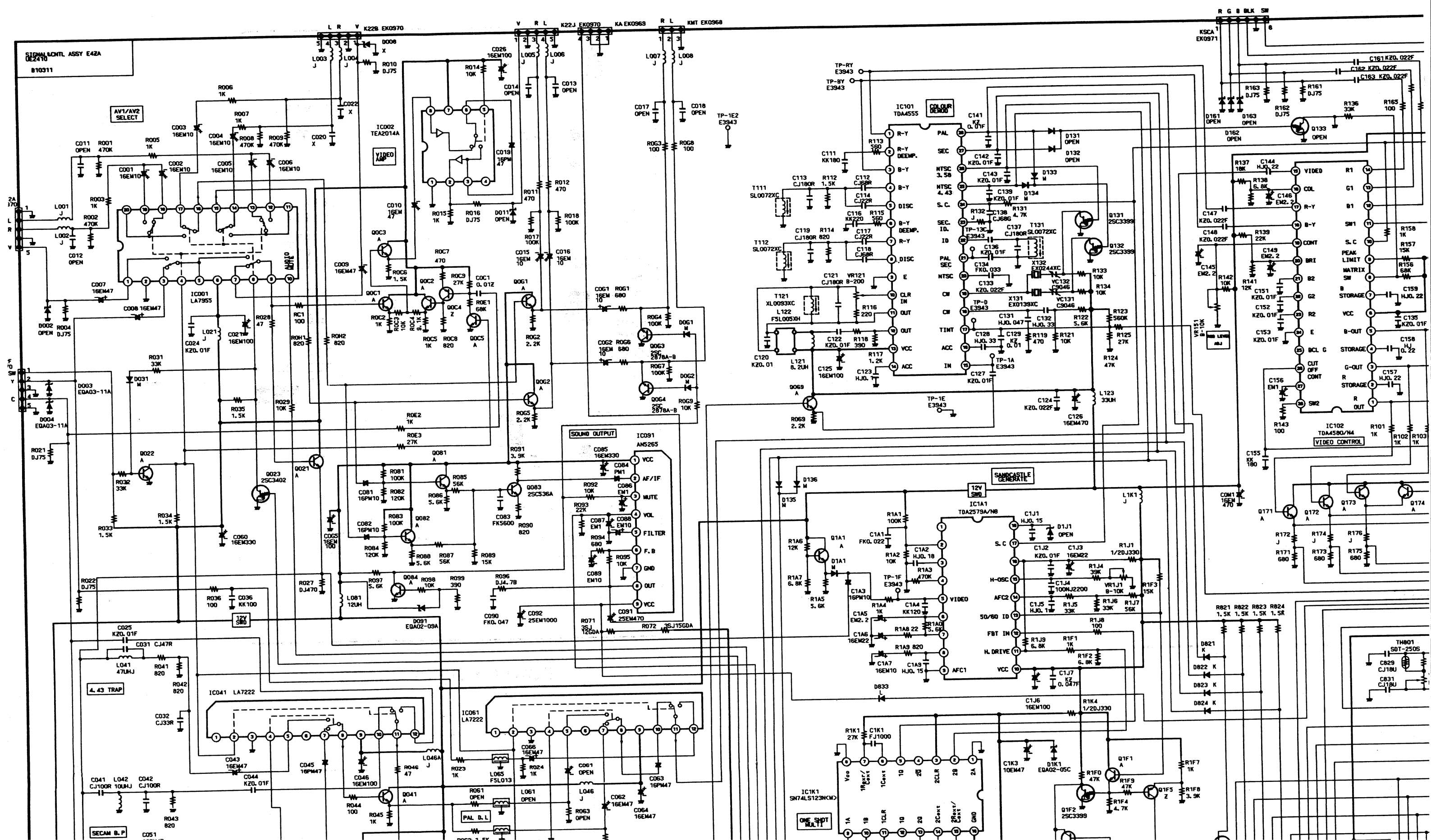
RESISTOR (Example)

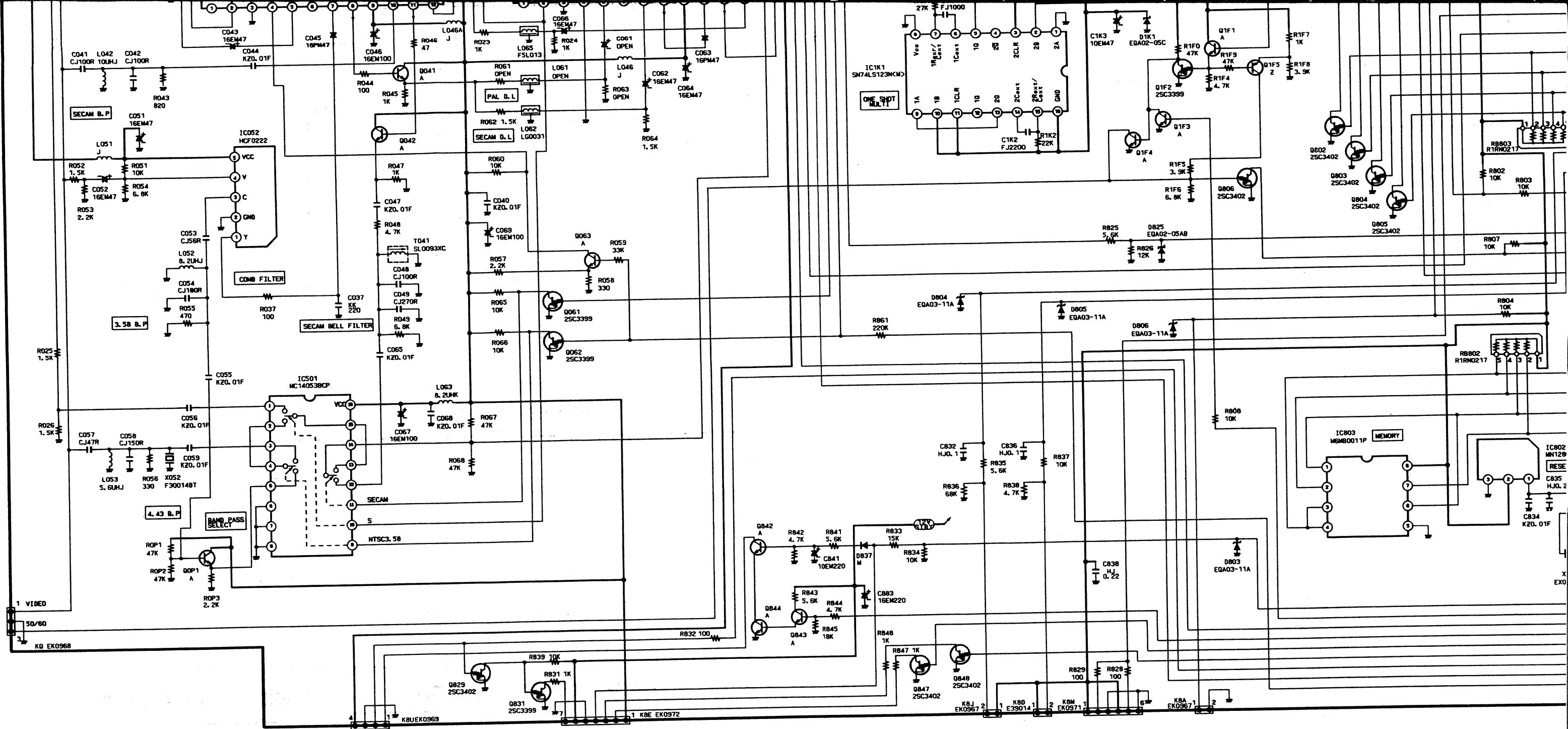
6 Y K 4.7

Value code
Tolerance code
Material code
Wattage number

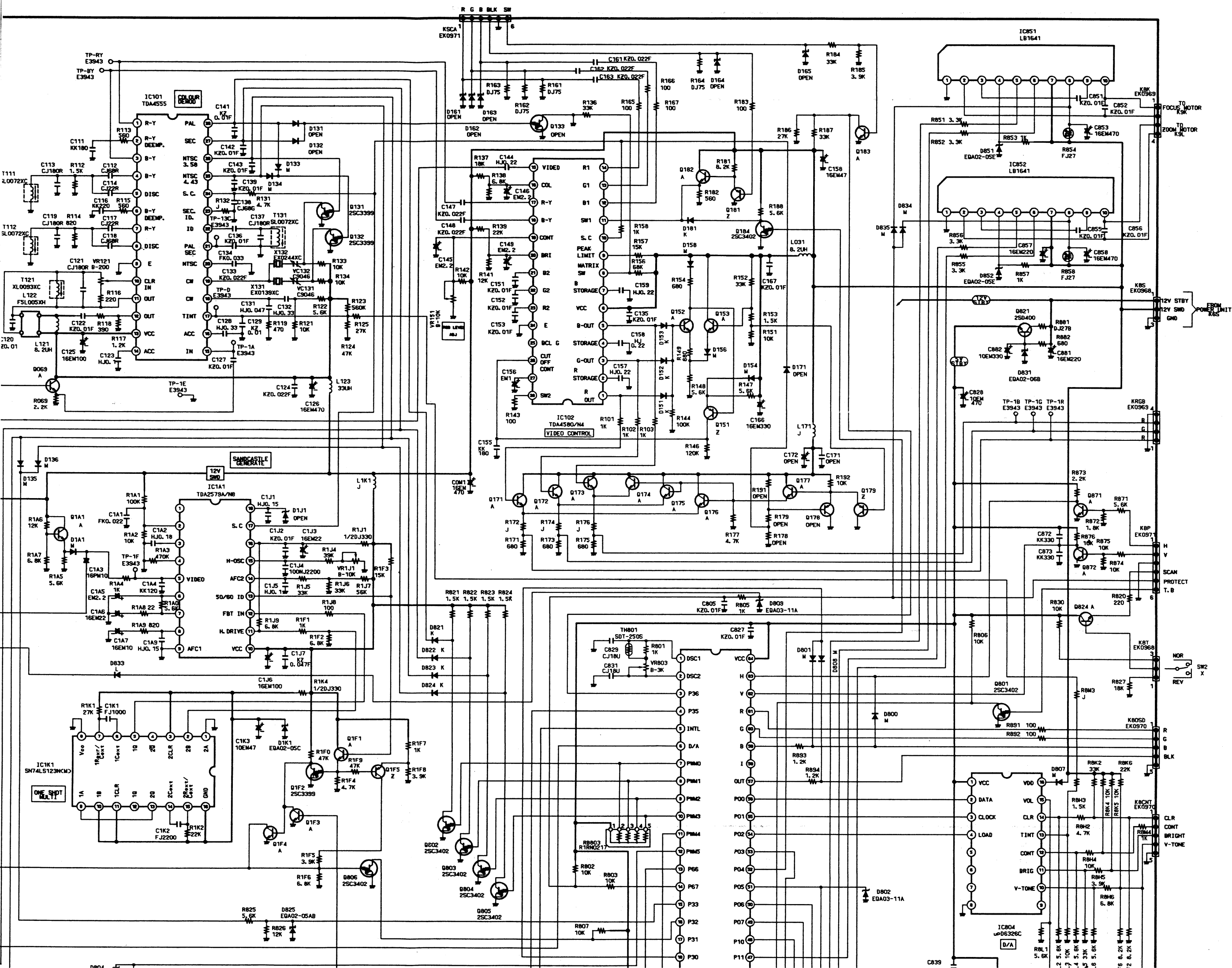
D±0.5%
F±1%
G±2%
J±5%
K±10%
M±20%
FCarbon film
NMetalized carbon
SOxide metalized
YWire Wound
CSolid
DCarbon film
WWire Wound

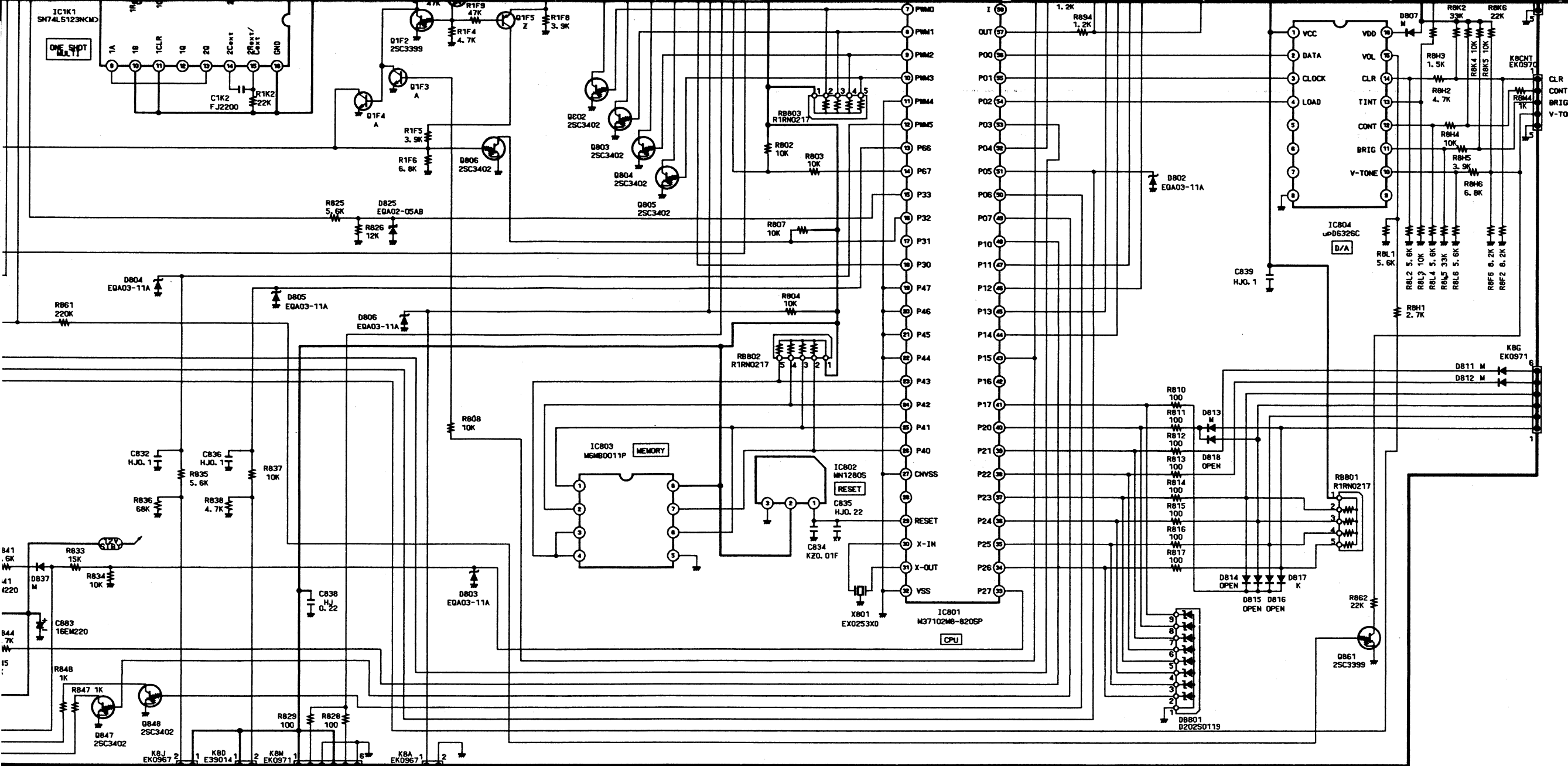


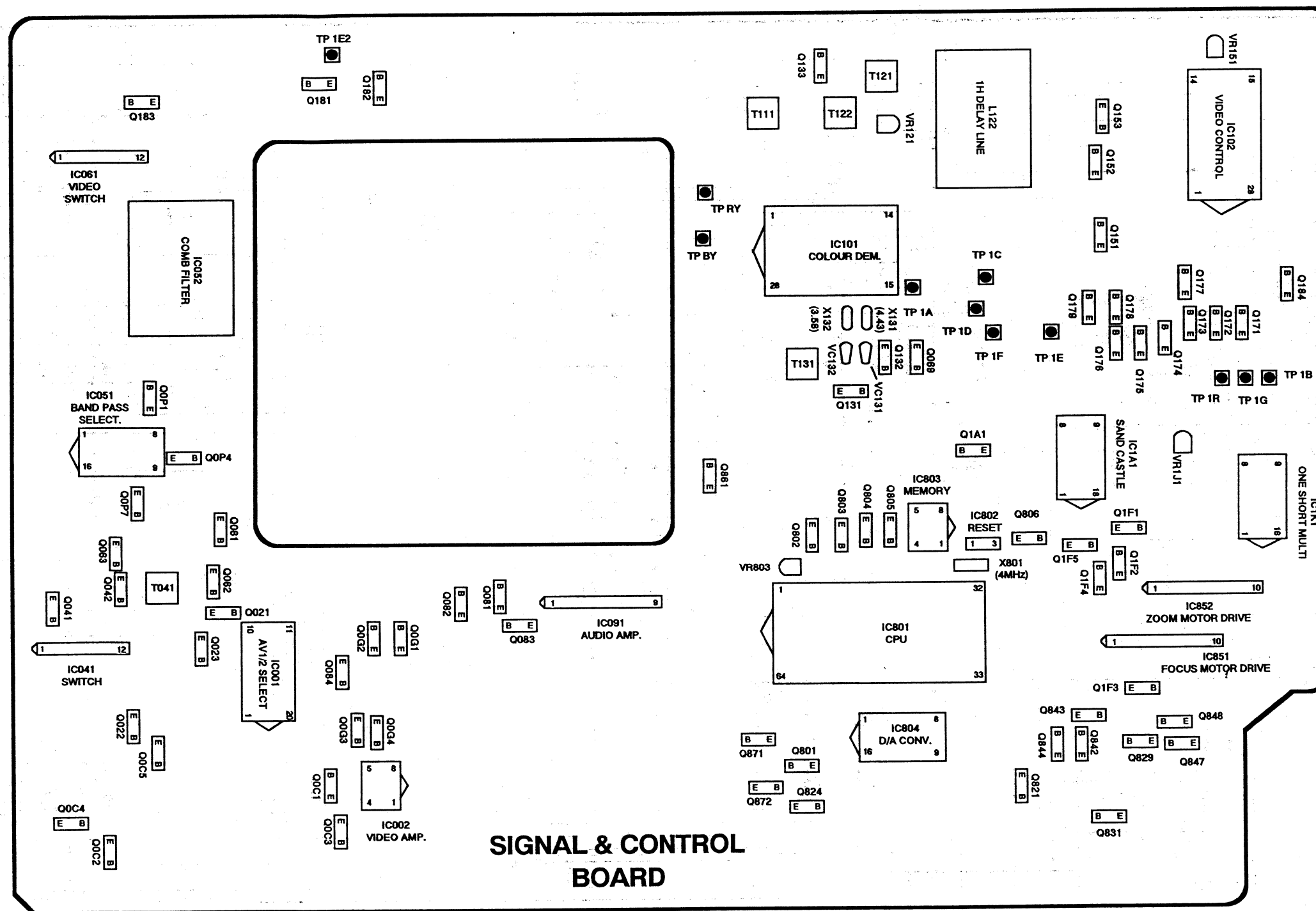


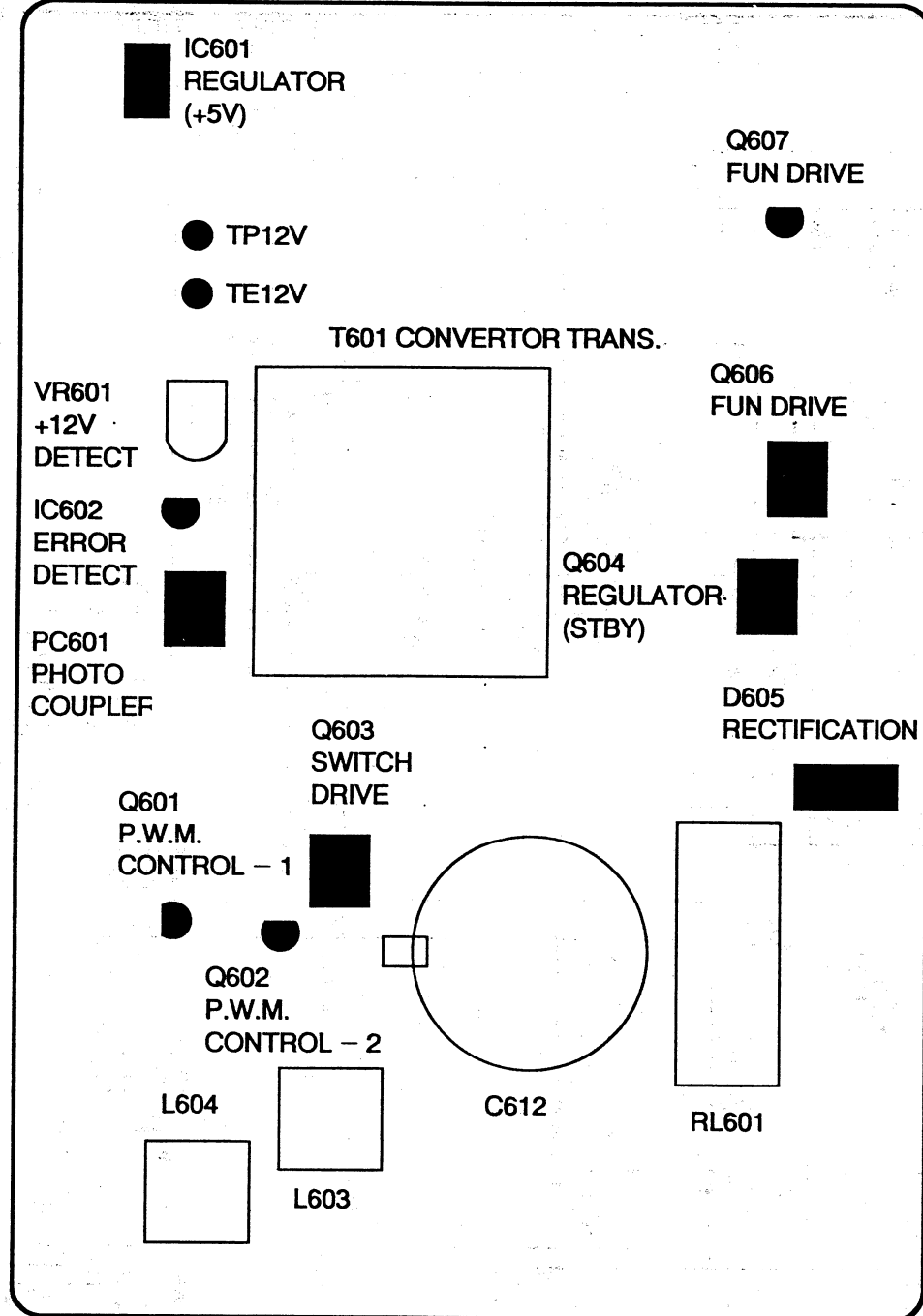


- 1.±0.5%
- 2.±1%
- 3.±2%
- 4.±5%
- 5.±10%
- 6.±20%
- 7.Carbon film
- 8.Metalized carbon
- 9.Oxide metalized
- 10.Wire Wound
- 11.Solid
- 12.Carbon film
- 13.Wire Wound

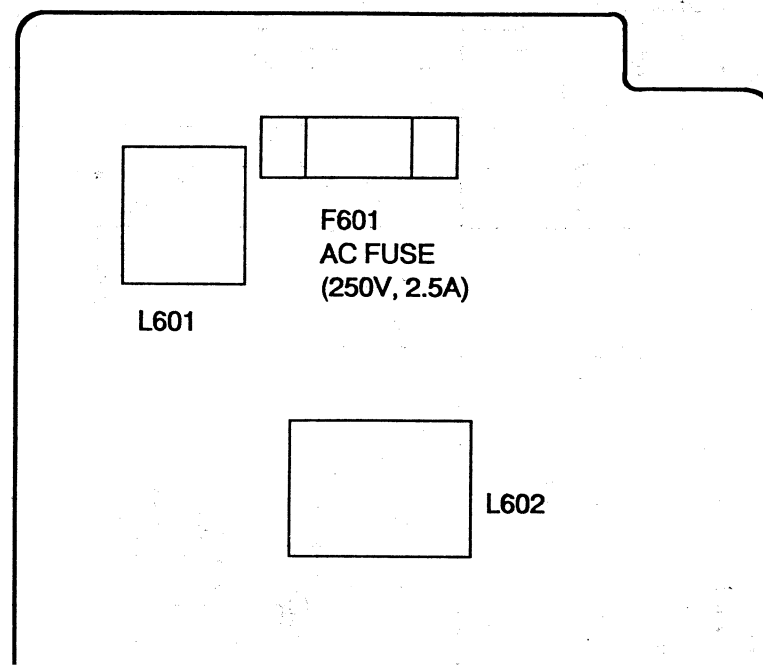


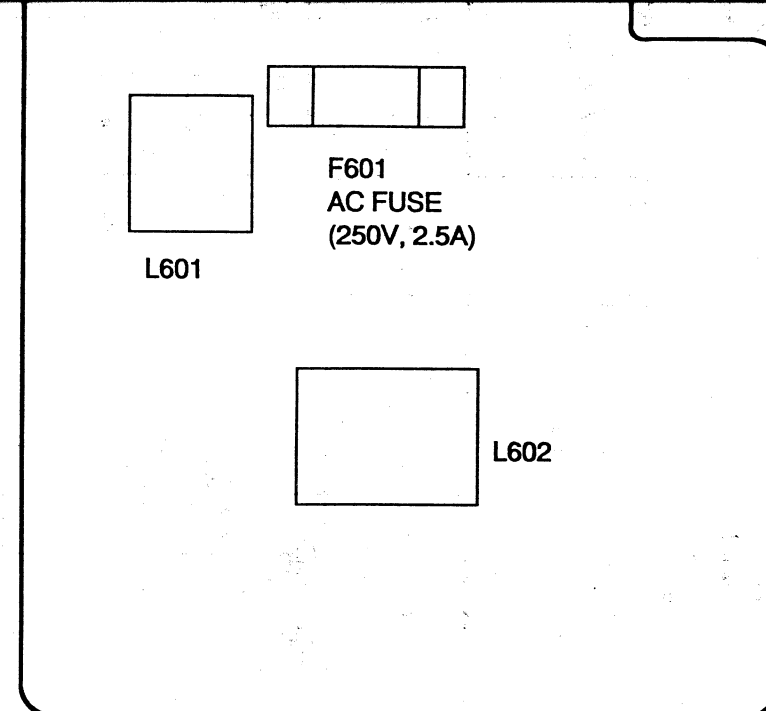




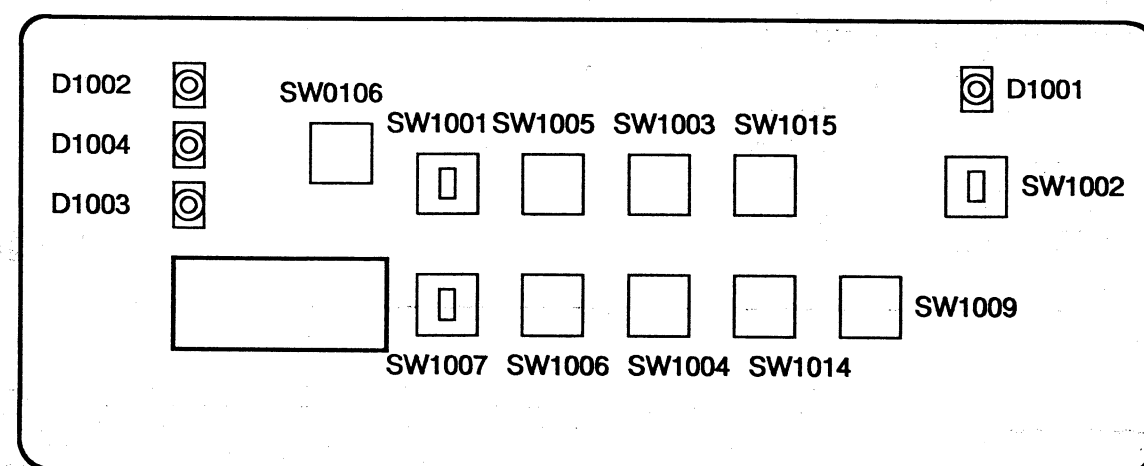


POWER SUPPLY BOARD





POWER BOARD



BACK CONTROL BOARD

RC PRE — AMP. BOARD L

